MADRAS DISTRICT MANUALS.

NORTH ARCOT.

[PRICE, 2 *rupees* 12 *annas*.]

MADRAS DISTRICT MANUALS.

NORTH ARCOT.

COMPILED BY

ARTHUR F. COX, M.C.S.,

ASSISTANT COLLECTOR AND MAGISTRATE, NORTH ARCOT DISTRICT.

NEW EDITION REVISED BY

HAROLD A. STUART,

OF THE INDIAN CIVIL SERVICE; FELLOW OF THE ROYAL STATISTICAL SOCIETY; MEMBER OF THE ROYAL ASIATIC SOCIETY.

VOLUME II.

MADRAS:

PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS.

1894.

Bahadúr K. Lakshman Rao and Rao Sahib S. Swáminátha Aiyar, Deputy Collectors, and to the District Registrar for information regarding the indebtedness of the ryots and, in the case of the first named, for assistance in correcting statistics; and lastly to Mr. R. Hill, Superintendent of the Government Press, for his ever ready help and advice in all matters connected with the printing of the book.

H. A. STUART.

CONTENTS.

CHAPTER I.

AREA AND POPULATION.

CHAPTER II.

RELIGION, CASTE AND LANGUAGE.

CHAPTER III.

AGE, SEX AND MARRIAGE.

CHAPTER IV.

RAINFALL, SEASONS AND PRICES.

CHAPTER V.

PUBLIC HEALTH.

CHAPTER VI.

EDUCATION.

CHAPTER VII.

COMMUNICATIONS.

CHAPTER VIII.

OCCUPATIONS AND TRADE.

CHAPTER IX.

AGRICULTURAL STATISTICS.

CHAPTER X.

IRRIGATION.

CHAPTER XI.

FORESTS.

CHAPTER XII.

ABKÁRI REVENUE.

CHAPTER XIII.

INCOME-TAX AND STAMP REVENUE.

CHAPTER XIV.

SPECIAL FUNDS AND ENDOWMENTS.

CHAPTER XV.

THE ADMINISTRATION OF JUSTICE.

PAGE

CHAPTER XVI.

REGISTRATION.

CHAPTER XVII.

LOCAL GOVERNMENT.

CHAPTER XVIII.

ECONOMIC CONDITION.

CHAPTER XIX.

GAZETTEER.

CHAPTER XX.

WEIGHTS AND MEASURES.

CHAPTER XXI.

CHAPTER XXII.

MANUAL

OF THE

NORTH ARCOT DISTRICT.

CHAPTER I.

AREA AND POPULATION.

CHAP. I. AREA AND ADMINISTRATIVE DIVISIONS.

Statement showing the Area, Population and Divisional Charges.

Taluk.	Area in square miles.	Population according to the census of 1891.	Designation of Divisional Officer and his head-quarter station.	Remarks.
Chittoor, including the pálaiyams of Náraganti, Bangári, Tumba and Gudipáti.	793	200,249	Collector (Chittoor).	The Head-quarter Deputy Collector is usually in charge.
Palmanér	439	48,135		
Punganúr zemindári ...	648	92,023		
TOTAL ...	**1,880**	**340,407**		
Arcot	432	176,878	Sub-Collector (Vellore).	
Vellore	455	192,937		
Gudiyáttam	446	176,709		
Kangundi zemindári ...	346	54,052		
TOTAL ...	**1,679**	**600,576**		
Wálájápet, including the muttá of Arigalavádi.	484	239,349	Head Assistant Collector (Ranipet).	
Kálahasti zemindári ...	874	147,860		
Chendragiri, including the pálaiyams of Kallúr and Pulicherla.	548	114,436		
Kárvetnagar zemindári ...	943	328,697		
TOTAL ...	**2,849**	**830,342**		
Wandiwash	466	177,723	Deputy Collector (Arni).	
Pólúr	562	139,709		
Arni jágír	180	91,730		
TOTAL ...	**1,208**	**409,162**		
Grand Total ...	**7,616**	**2,180,487**		

CHAP. I. ADMINISTRATIVE DIVISIONS.

THE area of the North Arcot district is 7,616 square miles, and there are only eight districts in the presidency of a greater extent. It consists of nine Government taluks and five large zemindáris. Chittoor is the largest taluk, but it contains a number of *pálaiyams*, which are permanently settled. The Kárvetnagar and Kálahasti zemindáris are each larger than any of the Government taluks. The Arni zemindári (or *jágír* as it is more generally called) is on the other hand only 180 square miles in extent.

The district is divided, for purposes of revenue administration, into four charges or divisions, each charge being under the direct control of a Divisional officer. The Head Assistant Collector's charge is by far the largest in area as well as in population. It includes the Wálájápet and Chendragiri taluks and the Kálahasti and Kárvetnagar zemindáris. It also includes the muttá of Arigalavádi and the pálaiyams of Kallúr and Pulicherla. These, however, are not separate divisions, the first being included in the Wálájápet taluk and the second and third in Chendragiri. The Sub-Collector's division, with its head-quarters at Vellore, is second in population, though in point of extent it occupies only the third place. This division comprises the taluks of Arcot, Vellore and Gudiyáttam and the zemindári of Kangundi. The administration of the other two divisions is conducted by two Deputy Collectors, one of whom has his head-quarters at Chittoor and the other at Arni. The former has charge of the Chittoor and Palmanér taluks and of the Punganúr zemindári. The total area of these tracts is 1,880 square miles, but their population is only 340,407. The other Deputy Collector's charge is only 1,208 square miles in extent, but it has a much larger population. When there is an Assistant Collector of sufficient standing, a portion or the whole of the Head-quarter Deputy Collector's division is placed in his charge.

POPULATION.

The earliest record of population found among the district records relates to the year 1822, when the numbers living in the Government taluks alone were reported to be 462,410 males and 429,882 females, or a total of 892,292 of both sexes. From 1851 to 1866 quinquennial censuses were taken of the whole district, but the method adopted was defective, and the figures must be accepted with reserve. In 1871 the first regular census was taken, and this was followed by the enumerations of 1881 and 1891. The results are given below :—

CHAP. I.
POPULATION.

Year.	Total.	Males.	Females.
1851	1,485,873	762,715	723,158
1856	1,588,104	811,834	776,270
1861	1,654,557	849,990	804,567
1866	1,787,134	Not stated.	
1871	2,015,278	1,020,678	994,600
1881	1,822,873	909,945	912,928
1891	2,180,487	1,094,539	1,085,948

The following statement shows the population of each taluk in 1881 and 1891:—

Statement showing the variation in Population between 1881 *and* 1891.

Taluk.	1891.	1881.	Variation.	Percentage of variation.	Percentage of variation between 1871 and 1881.
Arcot	176,878	147,388	+ 29,490	+ 20·01	− 6·36
Arni	91,730	73,417	+ 18,313	+ 24·94	− 5·49
Chendragiri	114,436	93,151	+ 21,285	+ 22·85	− 6·50
Chittoor	200,249	171,907	+ 28,342	+ 16·49	−19·31
Gudiyáttam	176,709	154,646	+ 22,063	+ 14·27	− 5·11
Kálahasti } Kálahasti zemindári.	70,566	52,037	+ 18,529	+ 35·61	−12·64
Mádarpák } Kálahasti zemindári.	77,294	65,985	+ 11,309	+ 17·14	
Kangundi	54,052	45,184	+ 8,868	+ 19·63	−13·19
Puttúr } Kárvetnagar zemindári.	155,546	128,912	+ 26,634	+ 20·66	− 4·85
Tiruttani } Kárvetnagar zemindári.	173,151	146,918	+ 26,233	+ 17·86	
Palmanér	48,135	41,815	+ 6,320	+ 15·11	−30·55
Pólúr	139,709	113,254	+ 26,455	+ 23·36	− 2·14
Punganúr	92,023	72,143	+ 19,880	+ 27·56	−33·98
Vellore	192,937	168,839	+ 24,098	+ 14·27	− 4·99
Wálájápet	239,349	199,177	+ 40,172	+ 20·17	− 7·88
Wandiwash	177,723	148,100	+ 29,623	+ 20·00	− 3·52
TOTAL ...	**2,180,487**	**1,822,873**	**+357,614**	**+ 19·62**	**− 9·80**

The population of the North Arcot district on the 26th February 1891 was 2,180,487, and only the districts of Vizagapatam, Malabar, Madura and Tanjore have a larger population. Of the several taluks in the district Wálájápet contains the highest number (239,349) of inhabitants. Chittoor comes next and Vellore follows close. Palmanér has the smallest population, though it is of nearly the same extent as Arcot or Vellore.

The population of the district has increased since 1881 by 357,614 or 19·62 per cent. This is equivalent to an annual increment of 1·8031 per cent. Between 1871 and 1881, the population decreased by 9·80 per cent. owing to the losses caused by the famine of 1877–78, and the large increase during the ten years ending with 1891 is no doubt due, in great part, to circumstances produced by the famine. The effect of the famine was to kill off the

CHAP. I. POPULATION.

young and the old more than the rest of the population, and we, therefore, find a very high proportion of the population of 1881 at the reproductive ages. In 1881 the proportion of children under five years was only 12 per cent. in the case of males and 13 per cent. in the case of females, but in 1891 the proportions were 15 and 17 per cent. respectively. The number of old people, *i.e.*, persons of 60 years of age and upwards, was also considerably lower in the former than in the latter year. It may be assumed that the population will increase in the next ten years at the normal rate for the presidency, which has been estimated at 12½ per *mille* per annum. On this assumption, the population of North Arcot on the 26th February 1901 will be 2,468,900.

Number of children under five years of age in a total population of 10,000.

Year.	Males.	Females.
1891 ...	1,538	1,659
1881 ...	1,181	1,260

The rate of increase varied in the different taluks, ranging from 14·27 per cent. in Vellore and Gudiyáttam to 35·61 per cent. in Kálahasti. The latter is so high as to suggest that it is in part owing to better enumeration.

DENSITY.

Statement showing the Density of each Taluk.

Taluk.	Number of persons to the square mile.	Taluk.	Number of persons to the square mile.
Government.		*Zemindári.*	
Arcot	409	Arni	510
Chendragiri	209	Kálahasti	169
Chittoor	253	Kangundi	156
Gudiyáttam	396	Kárvetnagar	349
Palmanér	110	Punganúr	142
Pólár	249		
Vellore	424		
Wálájápet	495		
Wandiwash	381	TOTAL ...	286

There are 286 persons to the square mile, the average for the presidency, exclusive of the Agency Tracts, being 281. The density is greatest in Arni and Wálájápet, and it is fairly high in Vellore, Arcot, Gudiyáttam and Wandiwash. It is lowest in the northern or Telugu part of the district, and this is due partly to the fact that there is, on the whole, relatively less rich land there and partly to the greater proportion of forest. Taking the district as a whole, there are 2·24 acres to each inhabitant, the average for the presidency being 2·27 acres. The most densely

populated taluks in the presidency are Ponnáni and Kumbakonam, which have, respectively, 1,152 and 1,104 persons to the square mile and about half an acre to each inhabitant.

Statement showing the number of Occupied Houses.

Taluk.	Number of occupied houses.	Average number of inmates per occupied house.	Taluk.	Number of occupied houses.	Average number of inmates per occupied house.
Government.			*Zemindári.*		
Arcot	23,860	7·41	Arni	12,377	7·41
Chendragiri ...	22,596	5·06	Kála-hasti. Kálahasti.	13,475	5·24
Chittoor ...	37,097	5·40	Kála-hasti. Mádarpák.	13,619	5·68
Gudiyáttam ...	27,933	6·33	Kangundi ...	10,960	4·93
Palmanér ...	10,356	4·65	Kárvetnagar. Puttúr ..	26,441	5·88
Pólúr	18,116	7·71	Kárvetnagar. Tiruttani.	24,564	7·05
Vellore ...	28,073	6·87	Punganúr ...	18,132	5·08
Wálájápet ...	33,522	7·14			
Wandiwash ...	22,970	7·74			
			TOTAL ...	**344,091**	**6·34**

The total number of occupied houses is 344,091, and there are on an average 6·34 persons to each house. The average number of inmates varies from 7·74 in Wandiwash to 4·65 in Palmanér. The average for the presidency is 5·31. The subjoined statement shows the nature of the roofs of houses and other buildings, such as shops, schools, temples, &c.

——	Tiled.	Terraced.	Thatched.	Total.	Percentage of thatched.
Houses (occupied and unoccupied).	57,236	10,230	294,959	**362,425**	81·38
Other buildings ...	5,746	7,830	6,815	**20,391**	33·42
TOTAL ...	**62,982**	**18,060**	**301,774**	**382,816**	**78·83**

Thatched houses form 81·38 per cent. of the total number of dwellings, while the proportion in 1871 was 86·7 per cent. There has thus been an improvement in the twenty years in spite of the heavy loss caused by the famine of 1877–78. Further, the statistics of 1871 relate to occupied houses only, while those of 1891 include all dwelling-houses whether occupied or not; and as houses which are not occupied are generally inferior buildings, it is clear that the improvement is really greater than that indicated by the above figures. The annexed statement gives the statistics for each taluk and municipality.

CHAP. I.
HOUSES.

Statement of Houses.

Taluk.	Tiled.			Terraced.			Thatched.			Total.		
	Houses.	Other buildings.	Total.	Houses.	Other buildings.	Total.	Houses.	Other buildings.	Total.	Houses.	Other buildings.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Arcot	8,842	956	9,798	102	752	854	15,756	620	16,376	24,700	2,328	27,028
Arni	4,142	433	4,575	24	559	583	8,785	84	8,869	12,951	1,076	14,027
Chendragiri ...	696	58	754	1,305	314	1,619	19,144	501	19,645	21,145	873	22,018
Chittoor ...	3,892	84	3,976	551	953	1,504	34,046	218	34,264	38,489	1,255	39,744
Gudiyáttam ...	4,628	164	4,792	59	488	547	21,042	242	21,284	25,729	894	26,623
Kálahasti ...	1,203	207	1,410	322	207	529	12,958	373	13,331	14,483	787	15,270
Kangundi ...	858	37	895	218	239	457	10,680	145	10,825	11,756	421	12,177
Mádarpák ..	493	68	561	39	124	163	13,007	427	13,434	13,539	619	14,158
Palmanér ...	1,224	266	1,490	1,532	224	1,756	9,347	254	9,601	12,103	744	12,847
Pólúr	2,405	429	2,834	17	436	453	15,797	789	16,586	18,219	1,654	19,873
Punganúr ...	67	30	97	2,969	730	3,699	16,591	251	16,842	19,627	1,011	20,638
Puttúr ...	1,974	57	2,031	127	185	312	26,267	253	26,520	28,368	495	28,863
Tiruttani ...	3,148	285	3,433	30	491	521	22,709	281	22,990	25,887	1,057	26,944
Vellore ...	4,685	546	5,231	90	403	493	17,454	609	18,063	22,229	1,558	23,787
Wálájápet ...	6,308	484	6,792	241	425	666	26,025	1,397	27,422	32,574	2,306	34,880
Wandiwash ...	3,128	288	3,416	29	819	848	20,674	253	20,927	23,831	1,360	25,191
TOTAL ...	47,633	4,392	52,085	7,655	7,349	15,004	290,282	6,697	296,979	345,630	18,438	364,068
Gudiyáttam municipality.	1,785	192	1,977	41	75	116	1,656	52	1,708	3,482	319	3,801
Tirupati do.	38	...	38	2,371	2	2,373	1,109	9	1,118	3,518	11	3,529
Vellore do.	5,791	794	6,585	155	347	502	1,336	53	1,389	7,282	1,194	8,476
Wálájápet do.	1,929	368	2,297	8	57	65	576	4	580	2,513	429	2,942
Grand Total ...	57,236	5,746	62,982	10,230	7,830	18,060	294,959	6,815	301,774	362,425	20,391	382,816

Statement showing the Population of each Town.

Town.	Population.		Variation.	Percentage of variation.
	1891.	1881.		
Vellore municipality ...	44,925	40,958	+ 3,967	+ 9·69
Gudiyáttam do. * ...	18,747	...	...	...
Tirupati do. ...	14,242	13,232	+ 1,010	+ 7·63
Kálahasti	11,754	9,935	+ 1,819	+ 18·31
Arcot	10,928	10,718	+ 210	+ 1·96
Ambúr	10,586	10,390	+ 196	+ 1·89
Wálájápet municipality ...	10,485	10,387	+ 98	+ 0·94
Chittoor	9,965	10,395	— 430	— 4·14
Pólúr	8,631	7,185	+ 1,446	+ 20·13
Sholinghur	6,416	5,697	+ 719	+ 12·62
Kárvetnagar	6,046	5,874	+ 172	+ 2·93
Punganúr *	5,565	...	...	...

* In the case of these towns it has not been possible to ascertain the exact population in 1881 of their present limits.

There are twelve towns in the district, of which Vellore alone is of any size. Since 1881 its population has risen by only 9·69 per cent., while the increase in the district as a whole was as high as 19·62 per cent. The low rate of increase of this town is still more surprising when it is remembered that it has always had a very large trade in grain which ought to have considerably grown since the great famine of 1877. Kálahasti has in the same period increased by 18·31 per cent., but the increase in the population of the whole zemindári was 35·61 per cent. In the case of Arcot, Ambúr and Wálájápet, the increase is so small that for all practical purposes the population of these towns may be regarded as stationary.

The urban population of North Arcot is 158,290 or 7·26 per cent. of the total, the proportion for the presidency, exclusive of the Agency Tracts, being 9·92 per cent. Statistics of the religion of the urban population are given in Chapter II.

VILLAGES.

The total number of inhabited villages is 4,453, and there are 631 uninhabited. The distribution of the inhabited villages according to population groups is shown in the annexed statement.

Villages classified by Population.

Taluk.	Total number of villages.	Population.	1–199.		200–499.		500–999.		1,000–1,999.		2,000–2,999.		3,000–4,999.		5,000 and over.	
			Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.
Arcot	258	165,950	42	4,842	100	33,280	75	53,874	32	45,067	5	12,222	4	16,665	...	...
Arni	162	91,730	40	4,522	77	26,178	21	14,942	15	20,177	5	11,865	4	14,046	...	...
Chendragiri ...	231	100,194	126	10,704	46	14,544	32	22,463	17	21,979	6	13,766	3	11,546	1	5,192
Chittoor	336	190,284	132	13,099	80	26,292	62	46,572	44	59,626	14	31,516	4	13,179	...	...
Gudiyáttam ...	183	157,962	9	1,141	43	15,217	74	52,369	48	65,954	7	16,724	2	6,557	...	...
Kálahasti	295	58,812	192	16,934	80	26,130	22	14,559	1	1,189	...	...	...	...	...	...
Kangundi	264	54,952	170	15,095	78	23,741	10	6,548	5	5,263	...	...	1	3,405	...	...
Mádarpák	175	77,294	56	6,166	63	21,185	42	30,410	13	17,178	1	2,355	...	...	...	...
Palmanér	93	48,135	26	1,847	25	7,856	33	23,455	8	9,937	...	...	...	...	1	5,040
Pólúr	262	131,078	111	7,157	54	17,815	58	41,631	32	42,073	3	7,167	3	10,139	1	5,096
Punganúr	842	86,458	748	51,169	80	22,882	10	6,974	4	5,433	...	...	...	...	...	...
Puttúr	340	149,500	121	12,628	118	39,004	71	49,963	26	35,400	2	4,899	2	7,606	...	...
Tiruttani	329	173,151	84	8,526	124	42,417	72	49,317	43	58,328	5	11,059	1	3,504	...	...
Vellore	149	137,426	14	1,654	33	10,855	50	36,343	38	52,585	12	28,869	2	7,120	...	...
Wálájápet	249	222,448	16	1,711	62	22,488	106	78,845	48	64,764	10	23,377	6	25,004	1	6,259
Wandiwash ...	285	177,723	25	3,467	113	38,884	112	78,115	29	38,569	4	10,253	1	3,250	1	5,185
TOTAL ...	4,453	2,022,197	1,912	160,662	1,176	388,768	850	606,380	403	543,522	74	174,072	33	122,021	5	26,772

CHAP. I.
VILLAGES.

The average population of a village is 454, but the divergence from the mean is great, the average ranging from 922 in Vellore taluk to 103 in Punganúr. There are five villages with a population over 5,000. Taking towns and villages together, we have the following interesting statistics:—

Population.	Percentage of towns and villages in each group.		Number of persons in 1,000 living in each class of town or village.	
	North Arcot.	Presidency.*	North Arcot.	Presidency.*
1—199	42·8	27·5	74	35
200—499	26·3	27·9	178	124
500—999	19·0	22·9	278	216
1,000—1,999	9·0	14·6	249	267
2,000—2,999	1·7	4·1	80	131
3,000—4,999	0·8	2·1	56	101
5,000 and over ...	0·4	0·9	85	126
TOTAL ...	100·0	100·0	1,000	1,000

* Exclusive of the Agency Tracts.

The average population of a town and village is 488, the average area is 1·71 square miles and the mean distance between each is 1·40 miles. These figures are all below the average for the presidency, and there is great variation from taluk to taluk.

IMMIGRATION AND EMIGRATION.

Statistics of Birth-place for people enumerated in North Arcot.

Birth-place.	Total.	Males.	Females.	Number per million.
A. North Arcot	2,076,530	1,049,430	1,027,100	...
Total A ...	2,076,530	1,049,430	1,027,100	952,549
B. Contiguous districts, &c.—				
(*a*) *In same province*—				
Chingleput	31,085	12,253	18,832	...
Cuddapah	7,963	3,850	4,113	...
Nellore	9,165	4,039	5,126	...
Salem	9,580	4,209	5,371	...
South Arcot	15,887	5,864	10,023	...
TOTAL (*a*) ...	73,680	30,215	43,465	33,791
(*b*) *In other provinces*—				
Mysore	7,864	3,333	4,531	...
TOTAL (*b*) ...	7,864	3.333	4,531	3,606
Total B ...	81,544	33,548	47,996	37,397
C. Remote Districts and States of same province—				
I. British Territory ...	17,694	8,757	8,937	...
II. Feudatory States ...	101	57	44	...
Total C ...	17,795	8,814	8,981	8,161

CHAP. I.
IMMIGRATION AND EMIGRATION.

Statistics of Birth-place for people enumerated in North Arcot—cont.

Birth-place.	Total.	Males.	Females.	Number per million.
D. Provinces and States in India—				
British Territory ...	2,435	1,609	826	...
Feudatory States ...	1,447	773	674	...
Total D ...	3,882	2,382	1,500	1,780
E. Countries in Asia beyond India—				
Adjacent to India ...	49	26	23	23
Remote from India ...	10	9	1	5
Total E ...	59	35	24	28
F. Foreign countries—				
Europe	85	57	28	...
Africa	87	51	36	...
America	8	6	2	...
Australasia	4	4	...	...
Total F ...	184	118	66	85
G. Born at sea	2	1	1	...
Total G ...	2	1	1	...
H. Birth-place not returned ...	491	211	280	...
Total H ...	491	211	280	...
Grand Total ...	2,180,487	1,094,539	1,085,948	1,000,000

Natives of North Arcot enumerated elsewhere.

Enumerated.	Total.	Males.	Females.
In contiguous districts—			
Chingleput	34,778	13,654	21,124
Cuddapah	10,100	4,918	5,182
Nellore	5,982	2,701	3,281
Salem	10,344	4,611	5,733
South Arcot	16,561	6,766	9,795
TOTAL ...	77,765	32,650	45,115
Elsewhere	29,349	15,526	13,823
Grand Total ...	107,114	48,176	58,938

The statistics of birth-place collected at the census are useful in determining the extent of real migration to and from each district. The district limits, however, are arbitrary and more or less conventional; there will, therefore, be a good deal of intercourse between people living on each side of the boundary, and intermarriages between the inhabitants of villages so situated are very common. This fact is well marked by the preponderance, as a rule, of the female sex among the immigrants from contiguous districts or states. There is very little immigration into North Arcot, for no less than 95·25 per cent. of the people enumerated

CHAP. I. IMMIGRATION AND EMIGRATION.

in the district were born in it. Of the immigrant population 81,544, or more than three-fourths and 3·74 per cent. of the total population, were born in adjoining districts or in Mysore, and we thus have 98·99 per cent. of the population returned as born in the district or in adjoining tracts. Among the people coming from neighbouring districts, the excess of females referred to above is very marked, the ratio being 1,382 females to 1,000 males. Of the remaining 22,413 immigrants as many as 17,795 or 0·82 per cent. of the total population were born in other districts or states of the presidency and only 0·19 per cent. in other parts of India and other countries. It is clear from these statistics that there is no considerable movement into the district, and that the greater part of such immigration as exists is due to intermarriages.

The statement of emigrants from North Arcot is not complete, as the returns of Mysore and other provinces and states, except Coorg, do not give information for any smaller area than the presidency. The returns available show that more than 100,000 natives of North Arcot were living in other districts and states of Madras or in Coorg at the time of the census. Of these 77,765 persons were enumerated in adjoining districts, and among them the females numbered 45,115, while the males formed only 32,650. This excess of females is found in every one of the adjoining districts, but is most noticeable in Chingleput and South Arcot and shows clearly that the migration is, as already observed, mainly due to intermarriage between the inhabitants of North Arcot and those of neighbouring tracts.

The total number of persons enumerated in North Arcot, but born in other districts or states of Madras or in Coorg, is 91,579, while the natives of North Arcot enumerated in those localities number 107,114. The district thus shows a net loss of 15,535 persons, of which the Madras City accounts for 8,294. This city sends to North Arcot only 9,791 inhabitants, but receives from it 18,085, or nearly double the number.

So far as these statistics show there is no appreciable movement from North Arcot, but if complete returns were available for Mysore, it would probably be found that there was some real emigration to that state. The census figures show that Mysore has of late attracted considerable numbers of the inhabitants of the Madras Presidency, and it is a reasonable presumption that a large proportion of these are natives of North Arcot, the western boundary of which marches with that of Mysore throughout the greater part of its length.

There are no statistics of emigration from North Arcot to places beyond the sea, such as Burma, Ceylon and the Straits Settlements, but there are several recruiters of labour for the last-mentioned colony at work, chiefly in the Pálár valley, and there is undoubtedly a fair amount of over-sea emigration in bad seasons.

Statistics of Religion.

Statement showing the Religions of the Population.

Taluk.	Hindus.			Musalmans.			Christians.			Jains.			Others.			Percentage on total population.				
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Jains.	Others.
Arcot	165,831	82,302	83,529	9,674	4,494	5,180	307	150	157	1,066	514	552	...	...	...	93·76	5·47	0·17	0·60	...
Arni	85,722	42,504	43,218	3,411	1,694	1,717	958	495	463	1,639	779	860	...	...	...	93·45	3·72	1·04	1·79	...
Chendragiri ...	108,661	55,324	53,337	5,250	2,869	2,381	519	269	250	5	5	...	1	1	...	94·95	4·59	0·45	0·01	0·00
Chittoor ...	193,278	98,366	94,912	6,114	3,162	2,952	852	438	414	4	3	1	1	...	1	96·52	3·05	0·43	0·00	0·00
Gudiyáttam ...	160,620	80,190	80,430	14,700	6,953	7,747	1,383	675	708	6	3	3	...	...	...	90·90	8·32	0·78	0·00	...
Kálahasti ...	67,791	34,104	33,687	2,579	1,309	1,270	196	90	106	...	...	...	...	...	...	96·07	3·65	0·28	...	...
Kangundi ...	52,281	25,973	26,308	1,748	921	827	23	12	11	...	...	...	...	...	...	96·72	3·24	0·04	...	...
Mádarpák ...	76,113	39,007	37,106	1,169	628	541	12	6	6	...	...	...	...	...	...	98·47	1·51	0·02	...	...
Palmanér ...	44,737	22,485	22,252	3,302	1,737	1,565	96	51	45	...	...	...	...	...	...	92·94	6·86	0·20	...	...
Pólúr	130,279	64,686	65,593	3,845	1,947	1,898	4,739	2,342	2,397	846	405	441	...	...	...	93·25	2·75	3·39	0·61	...
Punganúr ...	86,761	43,841	42,920	5,061	2,672	2,389	196	86	110	5	4	1	...	...	...	94·28	5·50	0·21	0·01	...
Puttúr ...	152,933	77,929	75,004	2,603	1,413	1,190	9	5	4	...	...	...	1	...	1	98·32	1·67	0·01	...	0·00
Tiruttani ...	170,935	86,763	84,172	2,097	1,115	982	114	65	49	3	2	1	2	...	2	98·72	1·21	0·07	0·00	0·00
Vellore ...	164,867	81,498	83,369	25,428	12,243	13,185	2,416	1,055	1,361	15	12	3	211	210	1	85·45	13·18	1·25	0·11	0·01
Wálájápet ...	231,352	115,803	115,549	6,291	3,125	3,166	1,698	867	831	7	2	5	1	1	...	96·66	2·63	0·71	0·00	0·00
Wandiwash ...	168,944	84,541	84,403	2,966	1,451	1,515	1,485	766	719	4,327	2,177	2,150	1	...	1	95·06	1·67	0·84	2·43	0·00
TOTAL ...	2,061,105	1,035,316	1,025,789	96,238	47,733	48,505	15,003	7,372	7,631	7,923	3,906	4,017	218	212	6	94·53	4·41	0·69	0·36	0·01

CHAPTER II.

RELIGION, CASTE AND LANGUAGE.

CHAP. II. RELIGION. Statistics of Religion.

Hinduism is the main religion of the district, no less than 94·53 per cent. of the population being followers of that creed. A higher proportion is found only in the three northernmost districts of the presidency and in Chingleput, Salem and Coimbatore. The adherents of the faith of Islám constitute 4·41 per cent. of the population of the district, while the proportion of Christians is considerably under 1 per cent. The Christians have increased by 49·76 per cent. during the last decade, or at a much higher rate than people of other religions, but their absolute number is still very small. Hindus form the great majority of the population throughout the district, but the proportions of Musalmans and Christians in the various taluks present striking differences. Musalmans are relatively most numerous in Vellore, Gudiyáttam and Palmanér, but only in the first two taluks are their absolute numbers large. Christians are numerous in Pólúr and Vellore. There are 7,923 Jains in North Arcot, the total number in the presidency being 27,425. They are more numerous in this than in any other district except South Canara, and are chiefly found in Wandiwash, Arcot, Arni and Pólúr.

Sects of Hindus.

The Hindus in North Arcot are pretty nearly equally divided between Saivism and Vaishnavism. The former is, however, the more prevalent creed, the Saivites being to the Vaishnavites in the proportion of 104 to 100. In 1871 the Saivites formed 47·09 per cent. of the total Hindu population, but their number has been slowly increasing during the last twenty years, and they now constitute more than half the total number of Hindus.

Sect.	Total.	Males.	Females.	Percentage.
Saivites ...	1,043,075	521,924	521,151	50·61
Vaishnavites ...	1,003,907	506,353	497,554	48·70
Mádhvas ...	4,691	2,234	2,457	0·23
Lingáyats ..	8,018	4,040	3,978	0·39
Others, including Not stated.	1,414	765	649	0·07
Total ...	2,061,105	1,035,316	1,025,789	100·00

CHAP. II. RELIGION.

Sects of Hindus.

Percentage of Hindus in each sect.

Year.	Saivites.	Vaishnavites.	Lingáyats.
1871	47·09	52·68	0·15
1881	47·76	50·61	Not known.
1891	50·61	48·70	0·39

The Lingáyats numbered only 2,778 in 1871, but in 1891 no less than 8,018 persons returned themselves as of this sect. They are most numerous in Palmanér and Punganúr, the zemindár of the last-mentioned place being himself of this sect.

Sects of Christians.

The subjoined statement shows the distribution of the Christian population by sect.

Christian Sects.

Sect.	1891. Total.	1891. Males.	1891. Females.	1881. Total.	1881. Males.	1881. Females.
Baptist	24	13	11	23	12	11
Church of England	752	421	331	409	201	208
Church of Scotland	24	12	12	...	...	...
Congregationalist	5	1	4	325	183	142
Episcopalian	100	54	46	7	2	5
Lutheran	264	117	147	45	15	30
Methodist	4	2	2	...	...	...
Presbyterian	1,905	988	917	24	14	10
Protestant	405	208	197	1,494	718	776
Roman Catholic	11,390	5,490	5,900	6,966	3,240	3,726
Unsectarian	1	1	...	...	...	...
Wesleyan	76	41	35	9	6	3
Greek Church	...	...	...	15	11	4
Not stated	53	24	29	701	359	342
TOTAL ...	15,003	7,372	7,631	10,018	4,761	5,257

The statistics for the two years are not fully comparable, as the number of persons returned under the vague term of 'Protestant,' as well as of those who did not return their sect, was much larger in 1881 than in the subsequent year. The 'Not

stated' can, however, be distributed among the Protestant and Roman Catholic sects, and the adoption of this method gives the following results :—

Sects of Christians.

Sect.	1891.	1881.	Increase.	Percentage of increase.
Roman Catholics.	11,432	7,506	3,926	52·30
Protestants ...	3,571	2,512	1,059	42·16
TOTAL ...	**15,003**	**10,018**	**4,985**	**49·76**

The Roman Catholics have advanced faster than the Protestants, and both sects show a considerably higher rate of increase than the population taken as a whole. This must be due to conversions.

The Roman Catholics constitute 76·20 per cent. of the total Christian population, the proportion for the presidency being only 66·12 per cent.

Christians by race.

In the following table Christians are distributed according to race :—

Race.	Total.	Roman Catholics.	Protestants.
Foreign	**227**	43	184
Eurasian	**675**	278	397
Native	**14,101**	11,111	2,990
TOTAL ...	**15,003**	**11,432**	**3,571**

No less than 93·99 per cent. are natives. It will also be seen that a large number of foreigners and more than half the Eurasians are Protestants, while a large majority of Native Christians are Roman Catholics.

Missions.

Although there are no precise records of the date when the Roman Catholics first started work in this district, it appears that there was a church at Punganúr at least as early as 1735. Father C. Calmette of the Society of Jesus, in a letter to Father Dalmos of the same society, dated 17th September 1735, makes mention of Christians and of a Christian church then at Punganúr. Father Arnold, an ex-Jesuit missionary, had charge of the mission at Punganúr in 1773, and in consequence of the persecution

CHAP. II. RELIGION. — Missions.

of the Poligars emigrated with his Christians, who were mostly of the Balija and Vellála castes, first to Vellore and afterwards to Chellampattéda, now a large Christian village in the Conjeeveram taluk of the Chingleput district. In the same letter he speaks of a new church which had been built seven or eight years before at Venkatagiri (*i.e.*, Venkatagirikóta) and was then in charge of the Rev. G. Gargam, S.J. When Venkatagirikóta was besieged by the Moghals the church was destroyed, but it was rebuilt two years afterwards. At Málapalli, near Punganúr, there are still the ruins of what appears to have once been a handsome church, having an inscription over the front door to the effect that it was built in 1780.

As regards the mission at Vellore, we find that towards the beginning of the seventeenth century, the Nawab of that place, Ghulám Murtuja Khán, conceded to a French priest an acre of land at the foot of the hill, where there was a fortress guarded by soldiers who were catholics. A chapel was built on this ground. The deed is written in the Persian language and is dated 1004 of the Muhammadan era. This chapel becoming too small for the needs of the community, a new church was built in 1854.

Of the Protestant missions the most important is the *Arcot Mission of the Reformed Church of America*, which commenced work in 1851. Prior to that year a little work had been done by the S.P.G., which had small churches in Chittoor and Vellore. At the former place Mr. Norris Groves, a Plymouth Brother, also had a small mission. In 1855 the S.P.G. and Mr. Groves handed over their converts to the American missionaries and left the field.

The American mission [1] is often called the Scudder mission, since it was for some years conducted by a band of brothers bearing that name. They were the sons of the Rev. John Scudder, an American physician, who gave up a practice in New York, in order to take up mission work in Ceylon. From Ceylon he removed to Madras, where his remains are interred, though he died at the Cape. His son, the Rev. H. M. Scudder, at first laboured in Madras, but in 1851 left that city, and chose the North Arcot district as a less occupied field. He began by establishing a dispensary in the town of Wálájápet, and in the next year was joined by two of his brothers, the Revs. William and Joseph Scudder. By the close of 1854 three stations—Chittoor, Vellore and Arni—had been chosen as the centres of operation of the three brothers, with an out-station at Ranipet. In Chittoor

[1] The information regarding this mission has been obtained from a report published in 1879 by the Rev. Jared Scudder.

CHAP. II. RELIGION. Missions.

and Vellore churches were organised, four vernacular schools were started, and a præparandi class, of thirteen selected native youths, had been formed in Vellore. In 1855 two other brothers, the Revs. Ezekiel and Jared Scudder, with a sister, joined the mission, thus doubling its strength, and signs of marked success were visible. The number of Native Christians had increased to 350 and of communicants to 76, two new schools had been opened, and a church organised at Arni. Part of this increase was due to the accessions from the S.P.G. and Mr. Groves' missions.

In 1857 the Chittoor church was built, and in 1859 the Arni church was completed, and the first native pastor, the Rev. Andrew Sawyer, ordained at Chittoor to be in charge of the Arcot church.

One of the most important efforts of the mission is in connection with the Ranipet hospital. The dispensary opened at Wálájápet by the Rev. H. M. Scudder was soon abandoned, but the Rev. Silas D. Scudder, who arrived in India in 1860, was commissioned as a Medical missionary. Want of funds, owing to the American war, however, delayed his engaging in medical work until 1866. The hospital was opened at Ranipet on March 17th, 1866. There was a Government institution in charge of an East Indian Apothecary in this place at the time, and it appeared at first as though the mission hospital must fail for lack of patients, owing to the suspicions of the natives. Upon application to Government, however, the rival dispensary was abolished, and half the amount hitherto devoted to it was given to the mission establishment. Ever since, the Ranipet dispensary has been the most successful institution of its kind in the district. In 1871, owing to the society being in debt, instructions were received to curtail expenditure. This involved the abandonment of the dispensary, but Government resolved to save the institution, and made an additional grant of Rs. 1,500 to its funds. In 1873 it was taken over by the Local Fund Board, which bears all the expense, but contributes nothing towards the salary of the missionary in charge. Another valuable institution is the Industrial School at Arni.

According to the report of this mission for the year 1892, the congregations in the North Arcot district number about 4,000, which is greater than the total number of Protestant Christians returned at the census of 1891, and considerably greater than the number returned under sects which could by any possibility be taken to signify members of the mission. Some portion of this discrepancy may be due to the fact that the census was taken in February 1891, while the mission figures relate to the end of the year 1892, so that there is an interval of nearly two years.

CHAP. II. RELIGION. — Missions.

Church of Scotland Mission.—The efforts of this mission are chiefly educational, and carried on only at Vellore since 1853, and at Arkonam since 1868.

Danish Mission.—The Rev. Edward Lowenthal of this mission has been stationed at Vellore since 1872, and has preached in its streets and in the houses of the natives. Two other missionaries of the same society established themselves at Ranipet in 1877, but left within a year.

Hermannsburg Evangelical Lutheran Mission.—This mission commenced its work in the Nellore district in 1866, and opened ground at Kálahasti in this district in 1873, with the Rev. J. Wörrlein as missionary. The mission house, a small chapel, and two houses for catechists were built in that year. The chapel being too small for divine service, a pretty large church was consecrated in June 1879.

In 1876 a station was established at Tirupati and the Rev. P. Peterson commenced the work in October. Within a year two mission houses were built there, two houses for catechists, and a church. Connected with the school for Christian children is a small orphanage with twelve orphans.

Religion of urban population.

The following table gives statistics of the religion of the urban population:—

Religion of urban population.

Towns arranged territorially with Population by Religion.

Town.	Total population.			Hindus.			Musalmans.			Christians.			Jains.			Others including Not stated.			Percentage on total population.			
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Others.
Vellore municipality.	44,925	21,285	23,640	31,224	14,871	16,353	12,220	5,778	6,442	1,474	631	843	3	2	1	4	3	1	69·50	27·20	3·28	0·02
Gudiyáttam do. ...	18,747	9,226	9,521	15,851	7,839	8,012	2,862	1,369	1,493	28	15	13	6	3	3	..	.	...	84·55	15·27	0·15	0·03
Tirupati do. ...	14,242	6,874	7,368	13,507	6,466	7,041	655	363	292	74	39	35	5	5	...	1	1	..	94·84	4·60	0·52	0·04
Kálahasti ...	11,754	5,538	6,216	10,159	4,762	5,397	1,504	734	770	91	42	49	...	...	...	...	...	...	86·43	12·80	0·77	...
Arcot	10,928	5,269	5,659	9,077	4,415	4,662	1,757	808	949	92	44	48	2	2	...	...	...	...	83·06	16·08	0·84	0·02
Ambúr	10,586	4,974	5,612	5,684	2,743	2,941	4,881	2,220	2,661	19	9	10	2	2	...	...	..	...	53·69	46·11	0·18	0·02
Wálájápet municipality.	10,485	4,943	5,542	9,645	4,518	5,127	833	420	413	7	5	2	...	...	...	...	...	...	91·99	7·94	0·07	...
Chittoor ...	9,965	4,981	4,984	8,091	4,049	4,042	1,735	867	868	139	65	74	...	...	...	...	...	..	81·19	17·41	1·40	...
Pólúr	8,631	4,215	4,416	6,721	3,294	3,427	1,721	833	888	189	88	101	...	...	...	...	...	...	77·87	19·94	2·19	...
Sholinghur ...	6,416	3,223	3,193	6,171	3,094	3,077	225	115	110	20	14	6	...	...	...	...	...	...	96·18	3·51	0·31	...
Kárvetnagar ...	6,046	2,999	3,047	5,442	2,679	2,763	601	319	282	3	1	2	...	...	...	...	...	.	90·01	9·94	0·05	...
Punganúr ...	5,565	2,684	2,881	4,202	2,046	2,156	1,266	593	673	92	41	51	5	4	1	...	...	..	75·51	22·75	1·65	0·09
TOTAL ...	158,290	76,211	82,079	125,774	60,776	64,998	30,260	14,419	15,841	2,228	994	1,234	23	18	5	5	4	1	79·46	19·11	1·41	0·02

CHAP. II. RELIGION AND CASTE.

Religion of urban population.

From this we see that Musalmans live chiefly in towns, and that this partiality for town life is also found among Christians, but in a smaller degree. The proportions differ very much in different towns. In Ambúr 46 per cent. of the inhabitants are Musalmans, while in Sholinghur they form only 3·51 per cent. The proportion of Christians and Musalmans is generally higher and that of Hindus lower among the townfolk than among the population as a whole. This is the case throughout the presidency.

CASTE.

The following list gives the castes returned at the census of 1891 and the number of persons who returned each. The castes have been classified with reference to traditional occupation or origin, but this classification must not be regarded as final, nor can every name which appears in the list be accepted as that of a real, separate and distinct caste. There are 32 names which are left unclassified, owing to absence of information about them. Some of these are probably the names of foreign castes, distorted by the enumerator's attempt to render them in Tamil or Telugu :—

CASTES, TRIBES AND RACES.

Caste, Tribe or Race.	Total.	Males.	Females.
Agriculturists, formerly Military and Dominant.			
Agamudaiyan	17,807	8,847	8,960
Áré	22	13	9
Kallan	91	42	49
Kshatriya	9,346	4,813	4,533
Maráthi	3,796	1,875	1,921
Náyar	12	5	7
Pálayakkáran	6,464	3,196	3,268
Rájput	726	373	353
Ráju or Rázu	15,888	8,585	7,303
Sámantan	2	2	...
Sérvégára	12	7	5
Velama	9,157	4,603	4,554
Agriculturists.			
Gauda	87	44	43
Jain	7,919	3,902	4,017
Kálingi	3	2	1
Kámáti	4	2	2
Kamma	117,487	60,094	57,393
Kápu or Reddi	147,693	74,654	73,039
Kudiyánavan	31	13	18
Kunbi	17	11	6
Nattamán	205	98	107
Sádar	26	13	13
Sudarmán	462	223	239
Súdra	237	125	112
Telaga	210	107	103

CASTES, TRIBES AND RACES—*cont.*

Caste, Tribe or Race.	Total.	Males.	Females.
Agriculturists—cont.			
Thákur	16	6	10
Tolagari	1,749	858	891
Tottiyan or Kambalattán	16	9	7
Udaiyán	308	158	150
Vellála	153,269	76,251	77,018
Cattle-breeders, Graziers, &c.			
Áhar	3	3	...
Gauala	5	3	2
Kannadiyan	2,146	1,080	1,066
Field Labourers.			
Cheruman	1	...	1
Mála	140,900	71,213	69,687
Mhár	77	45	32
Múppan	1	1	...
Paidi	3	1	2
Pallan	44	22	22
Palli or Vanniyan	308,371	154,834	153,537
Panchama	121	58	63
Paraiyan	208,479	103,733	104,746
Páyakkáran	35	16	19
Forest and Hill Tribes.			
Irula	17,766	8,960	8,806
Káttumaráti	52	29	23
Kondadora	16	7	9
Malaiyan	9	5	4
Yánádi	7,859	3,867	3,992
Priests.			
Bráhmans—			
Áchárya	6	4	2
Ádisaiva	23	14	9
Ádisákha	13	4	9
Ándhra	312	144	168
Árádhya	16	7	9
Áravattuvakkalu	24	12	12
Archaka	19	10	9
Áruvélu	741	363	378
Ashtasahasram	429	220	209
Badaganádu	593	259	334
Bairági	4	4	...
Brahacharanam	308	168	140
Bráhman	862	455	407
Désasta	3,800	1,808	1,992
Drávida	966	463	503
Ganda	358	239	119
Golkondavyápári	180	90	90
Gujaráti	4	3	1

CHAP. II.
CASTE.

CASTES, TRIBES AND RACES—*cont.*

Caste, Tribe or Race.	Total.	Males.	Females.
	Priests—cont.		
Bráhmans—*cont.*			
Gurukulam	965	469	496
Haidarábádi	36	17	19
Kambálava	5	3	2
Kamme	2	2	...
Kanauj	107	61	46
Kániyála	19	10	9
Karna Kamma	529	246	283
Karnátaka	1,241	602	639
Kártiyála	209	99	110
Kásalanádu	21	11	10
Kási	6	5	1
Konkanasta	24	12	12
Mádhva	324	194	130
Maharáshtra	9	7	2
Murikinádu	2,077	1,037	1,040
Nambi	5	2	3
Nandavaríki	570	260	310
Niyógi	1,947	941	1,006
Pádia	5	2	3
Pákanádu	63	25	38
Pakshitírtam	7	4	3
Páncharátra	35	20	15
Prathamasákha	281	130	151
Púrvasikha	1	1	...
Sárasvata	5	5	...
Sarvarya	13	8	5
Sírnádu	18	8	10
Sivadvija	349	159	190
Smárta	1,150	612	538
Sózhiya	318	167	151
Srívaishnava	170	84	86
Suklayajussákha	288	132	156
Telagánya	455	213	242
Tengalai	3,604	1,713	1,891
Ulachakamma	33	14	19
Uttarádi	9	6	3
Vadagalai	9,141	4,396	4,745
Vadama	8,785	4,134	4,651
Vádhya	224	108	116
Vaidıki	2,466	1,233	1,233
Vaikhánasa	314	146	168
Vaishnava	196	93	103
Vájasanéya	8	5	3
Véginádu	63	30	33
Vélanádu	1,354	705	649
Vijayapuramkamma	104	48	56
Others	205	113	92
TOTAL, BRÁHMANS ...	46,418	22,559	23,859

CASTES, TRIBES AND RACES—*cont.*

Caste, Tribe or Race.	Total.	Males.	Females.
	Priests—cont.		
Jangam	8,556	4,158	4,398
Pakkiri	59	33	26
Pandáram	3,984	1,986	1,998
Parapújári	5	4	1
Pújári	70	34	36
Tambala	44	25	19
Valluva	6,379	3,189	3,190
	Devotees.		
Bairági	147	89	58
Fakír	2	1	1
Gósáyi	111	50	61
Sanyási	435	230	205
Tambirán	37	18	19
Udási	2	1	1
	Temple-Servants.		
Ambalavási	1	...	1
Nambi	20	8	12
Óc'chan	176	82	94
Sátáni	1,880	918	962
	Writers.		
Kanakkan	6,659	3,274	3,385
Karnam	14,714	7,317	7,397
Káyast	16	6	10
	Astrologers and Physicians.		
Jósya	29	11	18
Kudimi	2	2	...
Vaidya	1	1	...
	Musicians and Ballad-reciters.		
Bhatráju	163	81	82
Vádyakáran	2	1	1
	Dancers and Singers.		
Bógam	899	410	489
Dási	172	40	132
Nattuvan	211	105	106
	Traders.		
Balija	112,491	56,205	56,286
Banajiga	535	246	289
Baniya	107	55	52
Chetti	34,931	17,297	17,634
Kavarai	26,105	12,699	13,406
Kómati	5,957	3,023	2,934
Labbai	12,224	6,458	5,766

CASTES, TRIBES AND RACES—*cont.*

Caste, Tribe or Race.	Total.	Males.	Females.
	Traders—cont.		
Lála	15	9	6
Máppilla	154	61	93
Nagarata	146	79	67
Naváyat	156	65	91
Pavalakkáran	12	7	5
Perike	1	...	1
Sénaikkudaiyán	269	137	132
Vadugan	55	21	34
Vaisya	843	402	441
	Pedlars.		
Jamkári	7	4	3
	Carriers.		
Lambádi	537	263	274
	Goldsmiths.		
Tattán	334	168	166
	Artisans.		
Kammála	26,184	12,975	13,209
Kamsala	16,219	8,142	8,077
	Barbers.		
Ambattan	14,125	7,024	7,101
Hajám	13	4	9
Mangala	8,297	4,213	4,084
	Blacksmiths.		
Kammara	751	388	363
Kollan	961	503	458
	Carpenters, Masons and Turners.		
Tac'chan	189	97	92
Vadla or Vadra	372	194	178
	Brass and Coppersmiths.		
Kanchugára	2	...	2
Kannán	55	30	25
	Tailors.		
Chimpiga	1	...	1
Darji	2	2	...
Námdév	198	92	106

CASTES, TRIBES AND RACES—*cont.*

Caste, Tribe or Race.	Total.	Males.	Females.
Perfumers and Betel-leaf sellers.			
Ákula	1	...	1
Flower sellers.			
Pushpakára	8	4	4
Weavers, Calenderers and Dyers.			
Déványa	6,103	3,170	2,933
Dévara	1	...	1
Janappan	1,521	749	772
Jándra	480	222	258
Kaikólan	48,971	25,095	23,876
Katri	6	6	...
Kóri	3	2	1
Nésé or Nesavukkáran	2	2	...
Patnúl	2,837	1,436	1,401
Rangári	190	91	99
Sále	8,043	4,105	3,938
Sáyakkáran	31	10	21
Sédan	162	83	79
Séniyan	1,721	854	867
Singam	8	7	1
Tari	8	6	2
Tegata	759	388	371
Washermen.			
Madivála	5	2	3
T'sákala	17,929	8,922	9,007
Vannán	15,158	7,551	7,607
Cotton-cleaners.			
Dúdékula or Pinjári	865	456	409
Ladáf	2	2	...
Panjukotti	3	2	1
Shepherds and Wool-weavers.			
Golla	54,849	27,821	27,028
Idaiyan or Yádavan	73,660	36,906	36,754
Kavádi	7	2	5
Kurumban	15,721	7,925	7,796
Oil-pressers.			
Gándla	10,637	5,370	5,267
Gániga	48	25	23
Telukula	32	17	15
Vániyan	9,514	4,559	4,955
Potters.			
Kummara or Kumbhára	8,161	4,171	3,990
Kusavan	9,376	4,769	4,607

CHAP. II.
CASTE.

CASTES, TRIBES AND RACES—*cont.*

Caste, Tribe or Race.	Total.	Males.	Females.
	Glass-workers and Bangle-makers.		
Valaiyalkáran	16	9	7
	Salt-workers.		
Uppara	3,050	1,562	1,488
	Fishermen, Boatmen, Palki-bearers, Cooks, &c.		
Besta	4,035	1,999	2,036
Bóya	13,869	6,995	6,874
Kahar	1	1	...
Kalási	1	1	...
Palle	22,684	11,442	11,242
Pattanavan	577	281	296
Sembadavan	6,363	3,156	3,207
Váda	8	4	4
	Personal Service.		
Ádapápa	2	...	2
	Distillers and Toddy-drawers.		
Gamalla	133	82	51
Ídiga	14,482	7,181	7,301
Índra	1,874	913	961
Kalál	50	20	30
Náchiyár	7	3	4
Panikkan	50	6	44
Segidi	1	1	...
Shánán	11,371	5,778	5,593
Tiyyan	2	2	...
	Leather-workers.		
Chakkiliyan	16,517	8,275	8,242
Chamár	5	2	3
Jínigára	6	5	1
Mádiga	28,293	14,509	13,784
Muc'chi	9	4	5
	Village Watchmen.		
Ékari	4,670	2,386	2,284
Mutrácha	28,148	14,322	13,826
Talaiyári	735	367	368
Vetti	42	21	21
	Scavengers.		
Halálkór	5	3	2
Tóti	69	29	40

CASTES, TRIBES AND RACES - *cont.*

Caste, Tribe or Race.	Total.	Males.	Females.
Earth-workers.			
Odde	54,385	27,833	26,552
Mat-makers, Basket-makers and Cane-splitters.			
Korava or Yerukala	9,081	4,603	4,478
Médara	848	426	422
Hunters and Fowlers.			
Bédar or Védan	17,442	8,780	8,662
Kárálan	2	...	2
Kuruvikkáran	150	75	75
Patra	960	458	502
Shikári	231	109	122
Válmíki	1,025	512	513
Villiyan	908	437	471
Miscellaneous and Disreputable Vagrants.			
Vésya	1	1	...
Beggars.			
Ándi	196	100	96
Banda	364	184	180
Budubuduka	59	32	27
Dásari	3,204	1,620	1,584
Jakkula	9	6	3
Jógi	2,398	1,196	1,202
Kanivádu	6	2	4
Mádári	5	2	3
Mailári	13	6	7
Mondi	382	197	185
Palaniyan	27	15	12
Pambaikkáran	169	77	92
Pambala	889	441	448
Panisavan	5,433	2,778	2,655
Paradési	1	1	...
Paratádan	66	28	38
Pic'chigunta	972	478	494
Siddha	58	37	21
Víramushti	25	12	13
Tumblers and Acrobats.			
Dommara	1,824	900	924
Jetti	456	238	218
Kúttádi	212	99	113
Módividdaikkáran	11	8	3
Nókkan	10	4	6
Payilván	7	3	4

CHAP. II.
CASTE.

CASTES, TRIBES AND RACES—*cont.*

Caste, Tribe or Race.	Total.	Males.	Females.
Jugglers, Snake-Charmers and Animal Exhibitors.			
Gangeddula	48	32	16
Garadi	39	18	21
Pámula	1	1	...
Non-Indian Asiatic Races.			
Arab	13	7	6
Moghal	937	457	480
Pársi	1	1	...
Pathán	5,615	2,692	2,923
Saiyad	7,462	3,700	3,762
Sheik	32,000	15,992	16,008
Non-Asiatic Races.			
European	227	127	100
Eurasians.			
Eurasian	675	328	347
Christian Converts.			
Native Christian	13,537	6,661	6,876
Titular Names.			
Kavundan	30	16	14
Mudali	547	309	238
Náyaka	90	40	50
Náyanár	1	1	...
Náyudu	70	47	23
Pillai	7	5	2
Sheriff	52	34	18
Territorial, Linguistic and Sectarian Names.			
Arava	14	8	6
Bengáli	1	1	...
Bondili	731	348	383
Bráhmo	4	3	1
Buddhist	207	207	...
Gujaráti	49	28	21
Hanafi	10	7	3
Hindi	1	1	...
Hindu	1	...	1
Kac'chi	6	5	1
Kanauj	5	3	2
Karnátaka	16	8	8
Lingáyat	2,397	1,109	1,288
Mádhva	9	6	3
Márvádi	33	22	11

CASTES, TRIBES AND RACES—*cont.*

Caste, Tribe or Race.	Total.	Males.	Females.
Territorial, Linguistic and Sectarian Names—cont.			
Musalman	36,408	17,605	18,803
Sháfi	29	14	15
Shia	1	1	...
Sivamatam	102	54	48
Sózhiya	1	1	...
Sunni	229	141	88
Telugu	10	6	4
Tengalai	47	26	21
Vadagalai	55	28	27
Vaishnava	94	52	42
Unclassified Castes.			
Áḷálakulam	4	2	2
Ani	9		5
Badmamujár	3	3	...
Dutta	2	2	...
Garlu	1	...	1
Haina	1	1	...
Ittar	22	11	11
Jamiri	1	1	...
Janakkulam	1	1	...
Kailavilladi	1	1	...
Kakal	18	4	14
Kartikar	3	...	3
Kavut	3	3	...
Kodiya	10	5	5
Kojjivar	3	3	...
Kottungar	15	9	6
Kousikar	1	...	1
Lohir	1	1	...
Mashayat	5	3	2
Pándiyakulam	1	1	...
Polléta	9	7	2
Rakkali	15	6	9
Sanjikulam	2	1	1
Saya	4	2	2
Solikadu	1	1	...
Toval	1	1	...
Uttarádi	1	1	...
Vaju	1	...	1
Varaka	6	3	3
Vasilikar	1	1	...
Velladu	4	4	...
Vottari	1	...	1
Caste not returned ...	406	214	192
Grand Total ...	**2,180,487**	**1,094,539**	**1,085,948**

CHAP. II.
LANGUAGE.

Statistics of Mother-tongue returned at the census of 1891.

Language.	Number returning it.	Language.	Number returning it.
Madras Languages.		*Other Indian Languages—cont.*	
Âré	75	Kach'hi	5
Hindustani	65,410	Maráthi	8,794
Irula	1	Márwádi	13
Kanarese	31,483	Sanskrit	17
Konkani	31	Shán	2
Kurumba	35	*Non-Indian Asiatic Languages.*	
Lambádi	206	Arabic	7
Malayálam	103	*Non-Asiatic Languages.*	
Patnúl	2,793	Danish	5
Tamil	1,214,930	English	960
Telugu	852,880	French	16
Tulu	1	German	11
Uriya	49	Irish	3
Yerukala	1,869	Portuguese	2
Other Indian Languages.			
Bengáli	6		
Burmese	206		
Goanese	6	Parent tongue not returned.	413
Gujaráti	142		
Hindi	13	TOTAL ..	2,180,487

Of the population of North Arcot 55·73 per cent. speak Tamil and 39·12 per cent. Telugu. Hindustani is the mother-tongue of 3·00 per cent. and Kanarese of 1·44 per cent. The subjoined statement shows the distribution by taluks of these four languages.

Taluk.	Total population.	Number returning			
		Tamil.	Telugu.	Kanarese.	Hindustani.
Arcot	176,878	143,332	27,730	538	4,456
Arni	91,730	74,508	12,273	1,231	1,661
Chendragiri	114,436	12,771	93,931	936	5,223
Chittoor	200,249	75,232	116,532	1,609	6,038
Gudiyáttam	176,709	120,064	48,273	1,116	6,189
Kálahasti	70,566	4,496	62,658	42	2,549
Kangundi	54,052	16,751	24,983	10,247	1,684
Mádarpák	77,294	28,160	47,890	35	1,070
Palmanér	48,135	4,001	34,358	5,989	3,077
Pólúr	139,709	118,599	16,305	804	3,345
Punganúr	92,023	1,747	78,607	6,149	4,706
Puttúr	155,546	48,175	103,782	109	2,652
Tiruttani	173,151	93,418	77,093	426	1,969
Vellore	192,937	139,014	36,412	1,431	14,293
Wálájápet	239,349	183,484	48,099	580	4,572
Wandiwash	177,723	151,178	23,954	241	1,926
TOTAL ...	2,180,487	1,214,930	852,880	31,483	65,410

Telugu is the prevailing language in Chendragiri, Chittoor and Palmanér taluks and in the Kálahasti, Kangundi, Mádarpák, Punganúr and Puttúr divisions, while *Tamil* is the language of the rest of the district. *Kanarese* is found throughout the district, but in no taluk is it the predominant language. It is the mother-tongue of 18·96 per cent. of the inhabitants of Kangundi and of 12·44 per cent. of the people of Palmanér. It is also spoken by 6,149 persons in Punganúr. *Hindustani*, in its Deccani variety, is spoken for the most part by Musalmans of foreign origin, who are now settled in the south. *Maráthi* is found in every taluk, but in Arni alone is it returned as the mother-tongue of more than a thousand inhabitants. *Áré* is really Maráthi and not a distinct language. *Patnúl*, a dialect of Gujaráti, spoken by the members of the Patnúl (silkweaver) caste, is found chiefly in Wálájápet, Arni, Chendragiri and Puttúr. Nearly all the members of this caste returned Patnúl as their vernacular. There are 9,081 Koravas or *Yerukalas* in the district, but only 1,869 of them have returned the tribal dialect. *Burmese* is returned by 206 people, all of whom are convicts in the central jail at Vellore: none of them were entered as Burmese in the caste return. Only one person has returned *Irula* as his mother-tongue: the remaining 17,765 of this caste are believed to have returned Tamil, of which Irula is a dialect. Again out of 15,721 *Kurumbas* only 35 returned that particular dialect, Kanarese being returned by the rest, although the Kurumba variety of Kanarese is a distinct dialect. Similarly only 206 of the 537 *Lambádis* returned the tribal language. The 17 people who returned *Sanskrit* are Srívaishnava Bráhmans; their real vernacular is probably Tamil. European languages have been returned by 997 persons, but the numbers of Europeans and Eurasians in the district is only 902. The difference is due either to the omission on the part of some Europeans or Eurasians to return their race or to some natives having returned these languages as their mother-tongue. Both these errors were found throughout the presidency.

CHAPTER III.

AGE, SEX AND MARRIAGE.

CHAP. III. AGE. THE following table shows the general age constitution of the population of North Arcot in comparison with the corresponding figures for the presidency as a whole and for England and Wales.

Statement showing Number at each Age in a total of 10,000 *of each sex.*

Age.	Males.				Females.			
	North Arcot.		Madras Presidency.	England and Wales.	North Arcot.		Madras Presidency.	England and Wales.
	1881.	1891.	1891.	1881.	1881.	1891.	1891.	1881.
0 ...	332	*350*	330	*298*	340	*379*	338	*282*
1 ...	230	*175*	171	*270*	240	*190*	178	*257*
2 ...	187	*340*	315	*278*	199	*371*	327	*265*
3 ...	196	*350*	352	*273*	227	*382*	365	*260*
4 ...	236	*323*	314	*272*	254	*337*	316	*258*
0-4 ...	1,181	1,538	1,482	1,391	1,260	1,659	1,524	1,322
5-14 ...	2,708	*2,302*	2,475	*2,350*	2,571	*2,162*	2,269	*2,232*
15-24 ...	1,751	*1,646*	1,648	*1,883*	1,853	*1,765*	1,756	*1,871*
25-34 ...	1,759	*1,666*	1,649	*1,441*	1,825	*1,773*	1,750	*1,479*
35-44 ...	1,283	*1,303*	1,262	*1,122*	1,129	*1,163*	1,166	*1,142*
45-54 ...	714	*843*	792	*818*	706	*753*	765	*855*
55 and over.	604	*702*	692	*995*	656	*725*	770	*1,099*
TOTAL ...	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

CHAP. III.
AGE.

As explained in the report on the census of the Madras Presidency in 1891, the returns of age are far from accurate, the most noticeable error being an over-statement of the numbers at the 25–34 period at the expense of those belonging to the 15–24 group. This error is also found in the returns for North Arcot, especially in the case of females. It will also be seen that the proportion of children under five years of age is high in North Arcot. In England and Wales less than 14 per cent. of the population are under five: in North Arcot the proportion is about 16 per cent. This is due to the relatively high birth-rate in this country, and also to the higher death-rate throughout life, which results in proportionately fewer people attaining the later ages.

The enormous difference in the proportion of young children in 1881 and 1891 brings out very clearly the effect of the famine, which produced excessive mortality among the very young and also checked fertility, so that the number of births was relatively low. Similarly the greater proportion in 1891 at the higher ages shows the heavy famine mortality among elderly people. These features in the age statistics are common to all famine districts.

Useful and dependent ages.

It may be assumed that all males between the ages of 15 and 59 and all females between 15 and 44 are capable of earning their own livelihood. On this assumption, the proportion of workers is 56·56 per cent. of the males and 47·01 per cent. of the females. The corresponding figures for the presidency, exclusive of the Agency Tracts, are 55·26 per cent. for males and 46·64 per cent. for females, so North Arcot occupies a relatively favourable position in this respect.

SEX.

In the total population of North Arcot there are 1,094,539 males and 1,085,948 females. The population thus shows a preponderance of males, the proportion being 992 females to a thousand of the opposite sex. In 1881 the ratio was 1,003 to 1,000, and in 1871 it was 974 to 1,000. If it is true that an excess of males shows an inaccurate census, then the enumeration of 1891 must be regarded as defective in respect of females; but there are good grounds for doubting whether this test is always a just one. The excess of males is not found in Kangundi, Gudiyáttam, Vellore, Pólúr, Arcot or Arni, and it is very slight in Wálájápet and Wandiwash. The deficiency of females is in fact confined to the northern half of the district which adjoins a tract formed by the districts of Cuddapah, Nellore, Kistna, Kurnool, Bellary and Anantapur, throughout which there is an excess of males. The excess of this sex was noticed in the Ceded Districts by Sir Thomas

CHAP. III. SEX.

Munro at the beginning of the century, and on investigation he found it to be a fact and not due to defective returns. As regards North Arcot it is a noticeable feature that there is an excess of females among the Musalmans, who, it may fairly be presumed, would be more disposed than the Hindus to omit to include their females in the schedules; and even among the Hindus themselves the deficiency of the gentler sex is by no means confined to those castes who are the most careful of the seclusion of their women. It is found among the so-called Kshatriyas, but also among the Málas; among the Velamas and Kammas, but also among the Mádigas. Moreover, there is no excess of husbands over wives, as there would be if wives had been omitted from the returns, and as there is in localities, such as the Agency Tracts, where the omission of females is undoubted. Lastly it is believed that the arrangements for taking the census were as complete in the north as in the south of the district, that the testing of the returns was as thorough and the supervision as careful in the one part as in the other. For all these reasons it seems probable that there has been no wilful omission of females and that the excess of the male sex is real. This excess is not due to an unusual excess at birth, for during the years 1882–89 the ratio of male to female births was only 104 to 100, while for the presidency generally it was 105 to 100. In England and Wales it is 104 to 100, but in Italy it is as high as 107 and in France and Austria 106 to 100.

Religion.	Number of females to 1,000 males.
Hindus	991
Musalmans	1,016
Christians	1,035
Jains	1,028

The following statement shows the proportion at each age period :—

Proportion of Sexes at different ages.

Age.	Number of females per 1,000 males.		Age.	Number of females per 1,000 males.	
	North Arcot.	Presidency.		North Arcot.	Presidency.
0	1,075	1,048	25–29	1,050	1,082
1	1,078	1,065	30–34	1,061	1,098
2	1,083	1,063	35–39	802	876
3	1,084	1,059	40–44	964	1,019
4	1,036	1,027	45–49	765	856
0–4	1,071	1,051	50–54	999	1,107
5–9	996	991	55–59	746	907
10–14	843	873	60 and over ...	1,134	1,220
15–19	925	965	All Ages ...	992	1,025
20–24	1,197	1,213			

Although more boys are born than girls, yet the mortality of male infants is considerably greater than that of females, and for all ages below five the girls out-number the boys. Details for each of the next five years are not available, but for the whole period (5–9) the male sex is in excess, and this excess is still more pronounced in the 10–14 period. The Madras life-table shows that the female mortality is higher than the male between the ages 6 and 14, but this does not fully account for the proportion of the two sexes. The ratio is, in fact, vitiated by the errors in the return of age, for a large number of girls have been returned as being older than they are, with the result that there is a great excess of females at the ages 20–24 and a considerable excess at the next two periods also.

With so many elements of doubt, it is not easy to arrive at the true facts, but the life-table supports the *a priori* conclusion that the mortality among females exceeds that of males during the ages when women incur the risks due to child-bearing, and the census statistics tend to show that the death-rate among women during this period is relatively heaviest in the poorest districts of the presidency where life is presumably hardest.

MARRIAGE.

The statements appended to this chapter contain statistics of the civil or conjugal condition of the inhabitants of each taluk, and the subjoined table affords information for the district as a whole as to the relative numbers of unmarried, married and widowed out of 10,000 of each sex and age, and of the numbers at each age out of 10,000 in each civil condition.

Distribution by Civil Condition of 10,000 *persons of each sex and age.*

——	Sex.	All ages.			0–14.			15–24.		
		Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.
North Arcot.	Males ..	5,535	4,119	346	9,943	55	2	7,730	2,234	36
	Females.	3,675	4,318	2,007	9,146	835	19	723	8,749	528
Presidency.	Males ..	5,387	4,269	344	9,846	150	4	6,891	3,049	60
	Females.	3,723	4,361	1,916	8,994	974	32	1,255	8,244	501

CHAP. III. MARRIAGE.

Distribution by Civil Condition of 10,000 *persons of each sex and age*—cont.

—	Sex.	25–39. Unmarried.	25–39. Married.	25–39. Widowed.	40–49. Unmarried.	40–49. Married.	40–49. Widowed.	50 and over. Unmarried.	50 and over. Married.	50 and over. Widowed.
North Arcot.	Males ...	1,688	8,047	265	341	8,996	663	176	8,004	1,820
	Females.	156	7,782	2,062	101	4,832	5,067	62	1,808	8,130
Presidency.	Males ...	1,360	8,368	272	310	9,041	649	192	7,991	1,817
	Females.	241	7,931	1,828	181	5,181	4,638	136	2,047	7,817

Distribution by Age of 10,000 *persons of each sex in each Civil Condition.*

—	Sex.	All Civil Conditions. 0–14.	15–24.	25–39.	40–49.	50 and over.
North Arcot ...	Males ...	3,839	1,646	2,302	1,074	1,139
	Females ...	3,821	1,765	2,287	962	1,165
Presidency ...	Males ...	3,956	1,649	2,240	1,035	1,120
	Females ...	3,793	1,756	2,255	966	1,230

—	Sex.	Unmarried. 0–14.	15–24.	25–39.	40–49.	50 and over.
North Arcot ...	Males ...	6,897	2,299	702	66	36
	Females ...	9,510	347	97	26	20
Presidency ...	Males ...	7,227	2,108	565	60	40
	Females ...	9,170	592	146	47	45

—	Sex.	Married. 0–14.	15–24.	25–39.	40–49.	50 and over.
North Arcot ...	Males ...	51	892	4,498	2,345	2,214
	Females ...	739	3,575	4,122	1,076	488
Presidency ...	Males ...	139	1,178	4,393	2,193	2,097
	Females ...	848	3,322	4,104	1,148	578

Distribution by Age of 10,000 *persons of each sex in each Civil Condition*—cont.

—	Sex.	Widowed.				
		0–14.	15–24.	25–39.	40–49.	50 and over.
North Arcot ...	Males ...	23	171	1,762	2,055	5,989
	Females ...	37	465	2,350	2,428	4,720
Presidency ...	Males ...	50	287	1,778	1,957	5,928
	Females ...	63	458	2,145	2,331	5,003

It would appear from these statistics that comparatively few girls are married before fifteen, but, as already explained, the age of many girls under fifteen has been exaggerated and a number of the wives shown as fifteen and upwards must be under that age. However, even after all allowance has been made for this error, it is evident that early marriage is much less common in North Arcot than in the Telugu country generally. In Vizagapatam for example 27 per cent. of the girls under fifteen are married, in Ganjam 21½ per cent., in Godávari and Kistna over 17 per cent., and in Kurnool and Bellary over 14 per cent. In North Arcot the proportion as returned is only 8·35 per cent., and the real proportion probably does not exceed 10 per cent. The age at which males marry is also higher than in most Telugu districts. As regards widowhood, North Arcot occupies a middle position. More than one-fifth of the women between 25 and 39 are widows; for those between 40 and 50 the proportion is one-half, while for women over 50 it is four-fifths. Of the men over 50, on the other hand, only 18·20 per cent. are widowers. The difference between the civil condition of males and females is well brought out by the two statements given above. Females marry much earlier than males, and a far higher proportion of them are widowed. There is about one widow to every two wives, but there are twelve husbands to each widower. The prevalence of widowhood is not confined to the Hindus, for it is almost equally common amongst Musalmans, and even among Christians there is one widow to every three wives. There are 1,040 wives to every 1,000 husbands, this excess of wives being due partly to polygamy, partly to the absence of husbands, and partly to women who were either single or widowed having returned themselves as married. Among Musalmans there are 1,084 wives to a thousand husbands, which shows that polygamy is more common with them than with Hindus.

Statement showing the Ages of the people.

Taluk.	Total population.			Age period.											
				Under 1 year.		1 year.		2 years.		3 years.		4 years.		Total 0–4.	
	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Arcot	**176,878**	87,460	89,418	3,298	3,687	1,679	1,845	3,216	3,488	3,019	3,307	2,925	3,120	14,137	15,447
Arni	**91,730**	45,472	46,258	1,983	1,982	647	743	1,848	1,958	1,563	1,694	1,519	1,685	7,560	8,062
Chendragiri ...	**114,436**	58,468	55,968	1,833	1,852	831	869	1,524	1,710	1,994	2,093	1,655	1,576	7,837	8,100
Chittoor ...	**200,249**	101,969	98,280	3,152	3,500	1,630	1,710	3,075	3,401	3,543	3,853	3,048	3,057	14,448	15,521
Gudiyáttam ...	**176,709**	87.821	88,888	3,039	3,174	1,836	1,909	3,208	3,413	3,268	3,476	2,890	2,911	14,241	14,883
Kálahasti ...	**70,566**	35,503	35,063	1,217	1,366	377	431	1,198	1,241	1,281	1,467	1,100	1,190	5,173	5,695
Kangundi ...	**54,052**	26,906	27,146	850	899	461	520	892	947	1,031	1,110	819	840	4,053	4,316
Mádarpák ...	**77,294**	39,641	37,653	993	1,113	798	876	1,210	1,261	1,406	1,508	1,288	1,284	5,695	6,042
Palmanér ...	**48,135**	24,273	23.862	671	713	371	457	661	821	836	891	623	645	3,162	3,527
Pólúr	**139,709**	69,380	70,329	2,931	3,107	1,288	1,323	2,629	2,746	2,224	2,547	2,443	2,640	11,515	12,363
Punganúr ...	**92,023**	46,603	45,420	1,372	1,618	619	699	1,319	1,586	1,673	1,753	1,494	1,496	6,477	7,152
Puttúr ...	**155,546**	79,347	76,199	2,814	3,113	1,148	1,285	2,470	2,733	2,899	3,163	2,410	2,470	11,741	12,764
Tiruttani ...	**173,151**	87,945	85,206	3,128	3,325	1,099	1,160	3,243	3,389	3,073	3,174	2,873	2,838	13,416	13,886
Vellore ...	**192,937**	95,018	97,919	3,453	3,810	1,869	1,975	3,309	3,572	3,339	3,679	3,058	3,274	15,028	16,310
Wálájápet ...	**239,349**	119,798	119,551	3,999	4,148	2,647	2,842	4,355	4,785	4,212	4,549	4,047	4,172	19,260	20,496
Wandiwash ...	**177,723**	88,935	88,788	3,515	3,69	1,879	2,029	3,071	3,277	2,907	3,234	3,115	3,388	14,487	15,620
TOTAL ...	**2,180,487**	**1,094,539**	**1,085,948**	**38,248**	**41,099**	**19,179**	**20,673**	**37,228**	**40,328**	**38,268**	**41,498**	**35,307**	**36,586**	**168,230**	**180,184**

Statement showing the Ages of the people—cont.

Taluk.	Age period—*cont.*											
	5–9.		10–14.		15–19.		20–24.		25–29.		30–34.	
	Males.	Females.	Males.	Females	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
	17	18	19	20	21	22	23	24	25	26	27	28
Aroot	11,721	11,825	9,126	7,643	7,003	6,833	6,483	8,183	6,842	7,395	6,425	7,410
Arni	6,087	6,086	4,514	3,725	3,708	3,603	3,468	4,264	3,544	4,080	3,446	4,005
Chendragiri	7,418	7,205	5,225	4,248	4,507	4,356	5,686	6,627	5,497	5,118	5,688	5,565
Chittoor	13,048	12,643	9,051	7,387	8,761	7,374	9,295	10,878	9,514	9,611	9,493	9,376
Gudiyáttam	12,595	12,578	8,653	7,241	7,024	6,895	6,867	8,827	7,348	8,188	6,779	7,368
Kálahasti	4,755	4,813	3,125	2,565	2,524	2,339	3,411	4,118	2,822	2,784	3,494	3,672
Kangundi	3,924	3,877	2,021	1,748	1,773	1,920	2,193	2,909	2,472	2,661	2,401	2,479
Mádarpák	5,173	5,092	3,835	3,207	3,090	2,674	3,530	3,988	3,294	3,429	3,359	3,416
Palmanér	3,004	2,951	1,605	1,426	1,749	1,826	2,457	2,939	2,422	2,287	2,538	2,532
Pólúr	9,359	9,610	7,209	6,216	5,882	5,521	5,452	6,603	5,678	6,053	5,384	5,795
Punganúr	5,802	5,766	2,891	2,606	3,191	3,056	4,663	5,583	4,205	3,988	5,141	5,072
Puttúr	10,617	10,525	7,461	6,210	6,534	5,608	7,139	8,151	6,788	6,594	6,919	6,909
Tiruttani	11,763	11,730	8,904	7,593	7,342	6,231	7,214	8,230	7,362	7,642	6,911	7,328
Vellore	13,736	13,619	9,985	8,555	7,872	7,667	7,702	9,447	7,584	8,516	7,046	8,058
Wálájápet	16,010	15,849	11,952	10,021	9,807	8,976	9,512	11,290	9,584	10,577	9,039	10,039
Wandiwash	11,901	12,113	9,426	8,058	7,393	6,711	6,838	7,964	6,900	7,519	6,468	7,063
TOTAL ...	**146,913**	**146,282**	**104,983**	**88,449**	**88,160**	**81,590**	**91,910**	**110,001**	**91,856**	**96,442**	**90,531**	**96,087**

Statement showing the Ages of the people—cont.

Taluk.	Age period—*cont.*													
	35-39.		40-44.		45-49.		50-54.		55-59.		60 and over.		Not stated.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Arcot	5,578	4,754	5,494	5,653	3,709	2,982	3,770	4,178	1,982	1,523	5,165	5,561	25	31
Arni	2,936	2,441	2,926	2,911	1,903	1,458	1,918	2,029	982	770	2,471	2,818	9	6
Chendragiri ...	3,808	2,664	4,375	3,914	2,216	1,503	2,683	2,690	927	748	2,584	3,217	17	13
Chittoor	6,979	5,319	7,145	6,713	4,038	3,068	4,277	4,249	1,738	1,300	4,150	4,817	32	24
Gudiyáttam ...	5,599	4,646	5,501	5,421	3,642	2,906	3,575	3,846	1,805	1,314	4,163	4,745	29	30
Kálahasti ...	1,917	1,395	2,902	2,589	1,145	763	1,864	1,666	510	314	1,855	2,343	6	7
Kangundi ..	1,967	1,489	2,076	1,864	1,055	762	1,261	1,244	473	326	1,235	1,549	2	2
Mádarpák ...	2,420	1,846	2,838	2,442	1,601	1,154	1,866	1,533	748	502	2,172	2,313	20	15
Palmanér ...	1,769	1,208	2,061	1,810	996	746	1,179	1,170	383	309	941	1,124	7	7
Pólúr	4,582	3,766	4,175	4,213	2,987	2,332	2,581	2,835	1,405	1,151	3,162	3,860	9	11
Punganúr ...	2,978	1,974	4,204	3,679	1,703	1,137	2,460	2,347	705	484	2,173	2,567	10	9
Puttúr	4,760	3,771	5,353	4,879	3,132	2,262	3,758	3,245	1,453	1,067	3,683	4,203	9	11
Tiruttani ...	5,403	4,453	5,566	5,334	3,666	2,738	3,940	3,622	1,933	1,418	4,518	4,988	7	13
Vellore	5,545	4,903	5,751	6,190	3,732	3,019	3,946	4,346	1,973	1,480	5,104	5,783	14	26
Wálájápet ...	7,701	6,518	7,338	7,540	5,164	4,105	5,139	5,185	2,696	1,951	6,580	6,991	16	13
Wandiwash ...	5,609	4,608	5,336	5,282	3,766	3,058	3,638	3,628	1,984	1,524	5,168	5,607	21	33
TOTAL ...	**69,551**	**55,755**	**73,041**	**70,434**	**44,455**	**33,993**	**47,855**	**47,813**	**21,697**	**16,181**	**55,124**	**62,486**	**233**	**251**

Statement showing the Number of Unmarried according to the census of 1891.

Taluk.	All ages.			0–14.		15–24.		25–39.		40–49.		50 and over.		Not stated.	
	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Arcot	80,282	47,116	33,166	34,695	31,854	9,986	966	2,120	211	185	64	111	47	19	24
Arni	41,177	24,254	16,923	18,041	16,264	5,128	494	937	114	84	33	59	15	5	3
Chendragiri ...	50,431	32,025	18,406	20,358	17,516	7,822	563	3,213	213	391	57	232	51	9	6
Chittoor	92,148	57,674	34,474	36,395	32,780	14,978	1,196	5,677	334	408	99	194	55	22	10
Gudiyáttam ..	81,876	48,651	33,225	35,234	31,633	10,295	1,075	2,712	358	264	87	128	55	18	17
Kálahasti	32,829	20,101	12,728	13,008	11,966	4,901	467	1,921	170	179	66	89	56	3	3
Kangundi ...	23,803	14,337	9,466	9,912	9,048	2,879	288	1,306	92	155	15	85	23	...	...
Mádarpák ...	36,699	22,678	14,021	14,639	13,253	5,612	625	2,160	97	166	26	86	10	15	10
Palmanér ...	20,227	12,959	7,268	7,712	6,926	3,196	197	1,642	100	294	29	113	14	2	2
Pólúr	65,183	37,977	27,206	27,892	25,843	8,074	1,027	1,791	229	130	69	88	33	2	5
Punganúr ...	39,936	25,483	14,453	15,063	13,707	6,181	389	3,427	237	547	69	259	48	6	3
Puttúr	73,868	45,308	28,560	29,733	26,963	11,272	1,083	3,834	337	288	95	176	76	5	6
Tiruttani ...	82,614	50,077	32,537	33,975	30,838	12,133	1,297	3,602	240	229	69	132	82	6	11
Vellore	90,000	52,658	37,342	38,456	35,358	11,274	1,402	2,501	403	255	95	165	74	7	10
Wálájápet ...	111,001	65,878	45,123	46,984	42,863	14,987	1,607	3,463	449	273	109	164	89	7	6
Wandiwash ...	82,542	48,450	34,092	35,508	32,487	10,441	1,176	2,208	280	161	72	114	54	18	23
TOTAL ...	1,004,616	605,626	398,990	417,605	379,299	139,159	13,852	42,514	3,864	4,009	1,054	2,195	782	144	139

II. F

Statement showing the Number of Married according to the census of 1891.

Taluk.	All ages.			0–14.		15–24.		25–39.		40–49.		50 and over.		Not stated.	
	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Arcot	77,459	37,706	39,753	251	3,005	3,448	13,463	16,355	16,130	8,582	4,776	9,065	2,375	5	4
Arni	40,578	19,848	20,730	115	1,573	2,015	7,060	8,776	8,614	4,506	2,328	4,432	1,153	4	2
Chendragiri ...	47,208	23,813	23,395	106	1,954	2,312	9,488	11,242	9,155	5,559	1,969	4,591	827	3	2
Chittoor	80,942	40,058	40,884	136	2,670	3,009	15,815	19,416	17,288	9,727	3,678	7,767	1,426	3	7
Gudiyáttam ...	74,141	36,248	37,893	227	2,960	3,545	13,719	16,495	15,485	8.278	3,949	7,701	1,777	2	3
Kálahasti ...	28,735	14,202	14,533	37	1,060	1,013	5,608	6,128	5,837	3,658	1,453	3,363	573	3	2
Kangundi ...	22,784	11,153	11,631	81	869	1,069	4,239	5,267	4,993	2,649	1,108	2,086	421	1	1
Mádarpák ...	32,172	15,697	16,475	53	1,051	994	5,762	6.731	7,015	4,022	1,871	3,893	774	4	2
Palmanér ...	19,314	9,571	9,743	58	940	976	4,064	4,671	3,737	2,279	750	1,585	251	2	1
Pólúr	60,450	29,538	30,912	182	2,297	3,205	10,682	13,509	12,955	6,676	3,422	5,961	1,550	5	6
Punganúr ...	36,671	18,191	18,480	93	1,738	1,637	7,395	8,327	7,172	4,579	1,550	3,552	624	3	1
Puttúr	64,023	31,376	32,647	84	2,472	2,368	11,926	14,182	13,414	7,676	3,405	7,065	1,427	1	3
Tiruttani ...	73,010	35,381	37,629	100	2,316	2,383	12,609	15,711	16,166	8,578	4,545	8,608	1,992	1	1
Vellore	80,256	39,230	41,026	276	3,044	4,228	14,789	17,112	16,618	8,616	4,429	8,994	2,138	4	8
Wálájápet ...	103,513	50,458	53,055	219	3,446	4,268	17,915	22,328	22,346	11,683	6,383	11,954	2,961	6	4
Wandiwash ...	78,108	38,209	39,899	278	3,235	3,747	13,015	16,430	16,222	8,611	4,825	9,140	2,595	3	7
TOTAL ...	919,364	450,679	468,685	2,296	34,630	40,217	167,549	202,680	193,147	105,679	50,441	99,757	22,864	50	54

Statement showing the Number of Widowed according to the census of 1891.

Taluk.	All ages.			0-14.		15-24.		25-39.		40-49.		50 and over.		Not stated.	
	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Arcot	19,099	2,625	16,474	36	47	48	583	367	3,213	436	3,791	1,737	8,838	1	2
Arni	9,948	1,360	8,588	...	31	30	310	212	1,793	238	2,006	886	4,447	...	1
Chendragiri ...	16,755	2,611	14,144	12	74	57	930	534	3,973	640	3,388	1,366	5,775	2	4
Chittoor	27,102	4,208	22,894	4	86	64	1,239	891	6,680	1,042	6,000	2,200	8,883	7	6
Gudiyáttam ...	20,555	2,866	17,689	...	75	46	910	507	4,340	598	4,286	1,711	8,073	4	5
Kálahasti ...	8,984	1,193	7,791	5	41	21	381	183	1,842	209	1,831	775	3,694	...	2
Kangundi ...	7,451	1,408	6,043	1	22	16	301	266	1,543	327	1,502	797	2,675	1	...
Mádarpák ...	8,377	1,247	7,130	3	28	12	266	178	1,574	249	1,699	805	3,561	...	2
Palmanér ...	8,582	1,736	6,846	...	36	33	504	415	2,189	482	1,776	804	2,337	2	4
Pólúr	14,041	1,851	12,190	3	41	53	412	339	2,426	356	3,051	1,098	6,260	2	...
Punganúr ...	15,362	2,911	12,451	4	54	33	849	569	3,621	779	3,197	1,526	4,725	...	5
Puttúr	17,639	2,656	14,983	...	61	33	748	449	3,522	520	3,640	1,652	7,011	2	1
Tiruttani	16,999	2,240	14,759	13	53	39	474	328	2,681	327	3,442	1,533	8,107	...	2
Vellore	17,490	2,472	15,018	...	48	38	553	360	3,010	425	3,455	1,649	7,951	...	1
Wálájápet ...	22,603	3,092	19,511	2	64	70	916	552	4,451	610	4,680	1,857	9,393	1	7
Wandiwash ...	24,758	3,423	21,335	6	40	56	741	522	4,328	544	5,149	2,292	11,074	3	3
TOTAL ...	**255,745**	**37,899**	**217,846**	**89**	**801**	**649**	**10,117**	**6,672**	**51,186**	**7,782**	**52,893**	**22,682**	**102,804**	**25**	**45**

Statement showing the Number of Persons who did not return their Civil Condition according to the census of 1891.

Taluk.	All ages.			0–14.		15–24.		25–39.		40–49.		50 and over.		Not stated.	
	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Arcot	38	13	25	2	9	4	4	3	5	...	4	4	2	...	1
Arni	27	10	17	5	5	3	3	1	5	1	2	...	2	...	...
Chendragiri	42	19	23	4	9	2	2	4	6	1	3	5	2	3	1
Chittoor	57	29	28	12	15	5	2	2	4	6	4	4	2	...	1
Gudiyáttam	137	56	81	28	34	5	18	12	19	3	5	3	...	5	5
Kálahasti	18	7	11	3	6	...	1	1	2	1	2	2	...	...	...
Kangundi	14	8	6	4	2	2	1	1	1	...	1	1	...	...	1
Mádarpák	46	19	27	8	9	2	9	4	5	2	...	2	3	1	1
Palmanér	12	7	5	1	2	1	...	1	1	2	1	1	1	1	...
Pólúr	35	14	21	6	8	2	3	5	4	...	3	1	3	...	...
Punganúr	54	18	36	10	25	3	6	1	4	2	...	1	1	1	...
Puttúr	16	7	9	2	3	...	2	2	1	1	1	1	1	1	1
Tiruttani	37	15	22	8	7	2	2	3	7	...	3	2	3	...	...
Vellore	78	38	40	15	18	2	7	10	5	2	5	7	4	2	1
Wálájápet	77	39	38	13	17	8	3	11	11	2	4	5	3	...	...
Wandiwash	74	36	38	15	16	4	10	11	7	3	1	3	3	...	1
TOTAL ...	762	335	427	136	185	45	73	72	87	26	39	42	30	14	13

CHAPTER IV.

RAINFALL, SEASONS AND PRICES.

CHAP. IV. RAINFALL.

THE appended statements, which were compiled in the office of the Board of Revenue, show the rainfall registered at each station during a series of years. The mean annual fall for the whole district during the twenty years 1870–89 was 38·74 inches and the average number of wet days was 49. The minimum fall was 18·38 inches, which was the amount recorded in 1876. The next lowest fall was 25·27 inches in 1875. The maximum quantity received in a year is 52·43 inches (in 1874). There is very little rain during the first four months of the year, but in May the thunder storms which usher in the south-west monsoon give on an average over 3 inches. From June to September the average fall is 17 inches, the greater part being received in August and September. With October the north-east monsoon sets in, and this gives on an average about the same quantity as the other monsoon, viz., 17 inches. The above account applies to the district, as a whole, but the conditions in the several taluks vary somewhat and a good average fall for the whole district may, of course, be accompanied by local failure. The rainfall is smallest in the upland taluks lying on the Mysore plateau, and it is also most precarious there. Chendragiri receives about the same amount as the plateau. The fall is heaviest in the north-east and the extreme south-east of the district. The former tract gets more than twice as much from the north-east as from the south-west monsoon, but in the remaining taluks there is not much difference in the quantities received during these two seasons. The first of the following statements gives the averages for each taluk at the different seasons :—

CHAP. IV.
RAINFALL.

Statement of Average Rainfall at the different seasons of the year.

Recording stations.	January to April.	May.	June to September.	October to December.	Total.
			S. W.	N. E.	
Kangundi	1·19	3·63	15·37	12·22	**32·41**
Venkatagirikóta ...	0·71	3·08	13·30	12·21	**29·30**
Palmanér	1·40	3·22	17·31	14·82	**36·75**
Punganúr	1·08	2·96	12·62	12·14	**28·80**
Chendragiri ...	1·27	2·14	14·58	16·15	**34·14**
Kálahasti	0·88	2·45	11·79	30·40	**45·52**
Mádarpák	1·37	3·14	14·56	30·26	**49·33**
Puttúr	1·04	2·81	18·76	21·22	**43·83**
Tiruttani	0·75	2·16	15·89	19·62	**38·42**
Gudiyáttam ...	1·43	2·93	18·58	15·64	**38·58**
Vellore	1·32	3·98	18·66	18·54	**42·50**
Chittoor	1·54	3·69	18·56	15·37	**39·16**
Wálájápet	1·50	2·94	19·42	16·63	**40·49**
Arcot	2·06	3·41	19·86	16·64	**41·97**
Arni	0·97	2·37	19·08	18·15	**40·57**
Pólúr	1·17	2·87	17·75	17·07	**38·86**
Wandiwash	1·29	3·43	19·62	21·54	**45·88**
DISTRICT AVERAGE.	**1·37**	**3·20**	**17·05**	**17·12**	**38·74**

Average Rainfall of the North Arcot district in inches.

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1870	0·85	...	0·39	0·20	1·47	3·66	3·27	5·74	4·56	11·26	2·14	0·81	**34·35**
1871	1·36	0·35	2·53	0·48	3·54	1·79	3·38	2·19	9·59	5·10	12·89	0·48	**43·68**
1872	...	0·07	...	0·07	9·12	1·09	3·76	6·79	3·69	6·91	13·69	2·81	**48·00**
1873	...	5·27	...	0·86	0·69	1·20	2·38	4·93	6·87	9·00	1·71	1·32	**34·23**
1874	...	...	0·12	...	9·19	4·71	5·54	2·24	15·52	11·31	2·70	1·10	**52·43**
1875	0·29	...	0·20	0·16	2·54	1·89	2·00	9·25	3·22	3·37	1·17	1·18	**25·27**
1876	...	...	0·16	0·19	2·08	3·46	3·45	2·68	4·02	0·79	1·55	...	**18·38**
1877	...	0·01	0·61	0·41	4·49	2·88	0·91	2·60	10·39	9·93	4·89	1·77	**38·89**
1878	0·01	..	0·05	0·94	1·68	2·95	5·49	11·28	5·60	4·91	3·78	1·26	**37·95**
1879	1·33	0·58	1·36	0·24	4·62	4·52	4·63	2·92	2·73	8·23	3·21	0·17	**34·54**
1880	0·23	0·43	...	1·12	3·00	1·39	2·46	5·16	3·85	7·52	12·84	1·98	**39·98**
1881	0·16	...	0·07	0·03	1·51	2·99	1·07	10·29	8·82	2·15	7·42	1·72	**36·23**
1882	1·25	...	0·03	0·83	2·41	1·40	1·85	6·82	3·80	3·70	19·55	0·12	**41·76**
1883	0·01	...	0·02	0·21	2·13	3·79	3·43	5·80	3·74	10·44	7·73	5·38	**42·68**
1884	0·43	0·04	0·09	0·26	0·70	1·81	1·79	4·96	3·80	12·55	13·05	9·64	**49·06**
1885	...	...	0·52	0·02	1·60	2·34	1·88	2·11	3·90	5·52	10·21	5·96	**34·06**
1886	0·02	...	0·76		5·60	4·07	6·28	5·22	5·04	5·60	5·20	0·86	**38·65**
1887	...	..	0·12	0·05	1·71	4·52	0·97	4·82	5·10	12·79	10·12	6·78	**46·98**
1888	0·03	...	...	0·07	5·31	2·00	2·04	4·70	6·00	6·71	9·39	1·73	**37·98**
1889	0·32	...	0·17	1·12	0·69	3·68	4·31	5·11	8·16	8·97	1·80	5·45	**39·78**
AVERAGE—1870-89.	**0·31**	**0·34**	**0·36**	**0·36**	**3·20**	**2·81**	**3·04**	**5·28**	**5·92**	**7·34**	**7·25**	**2·53**	**38·74**
1890	0·09	...	0·13	1·06	1·60	4·87	4·02	3·57	4·55	6·36	3·31	0·87	**30·43**
1891	0·66	0·96	0·24	0·37	0·43	2·34	0·92	2·63	4·17	8·07	2·79	4·37	**27·95**
1892	0·01	0·22	0·03	0·48	1·39	5·31	5·71	9·41	6·58	5·25	0·68	1·77	**36·84**
Average Number of Wet days.													
1870	2	...	1	1	2	8	8	7	7	11	7	1	**55**
1871	1	1	1	1	4	3	5	4	9	7	11	1	**48**
1872	...	...	...	...	3	3	6	11	7	7	11	6	**54**
1873	...	4	...	2	1	3	2	8	7	13	4	3	**47**
1874	...	...	...	...	5	6	8	5	14	10	6	3	**57**
1875	...	...	...	1	5	3	4	11	5	6	3	3	**41**
1876	...	...	...	1	4	5	6	5	5	2	3	...	**31**
1877	...	...	1	1	5	5	2	4	12	12	7	3	**52**
1878	...	...	...	1	3	4	9	13	9	7	5	3	**54**
1879	2	...	2	1	4	6	7	7	4	10	4	...	**47**
1880	1	1	...	2	6	3	5	6	5	9	13	4	**55**
1881	...	...	...	...	3	5	2	12	9	3	8	3	**45**
1882	2	...	...	1	4	3	5	9	6	5	12	1	**48**
1883	..	...	...	1	4	5	6	8	4	12	8	4	**52**
1884	1	...	...	...	2	3	3	7	6	11	11	6	**50**
1885	...	...	1	...	2	4	3	5	6	8	6	6	**41**
1886	...	...	1	...	5	6	7	7	7	8	6	2	**49**
1887	..	...	...	..	3	6	2	8	7	10	12	6	**54**
1888	...	...	...	...	4	3	4	7	6	7	8	3	**42**
1889	...	..	...	2	1	6	6	7	9	9	3	5	**48**
AVERAGE—1870-89.	**1**	...	...	**1**	**4**	**5**	**5**	**8**	**7**	**8**	**7**	**3**	**49**
1890	...	...	1	1	4	6	6	6	6	9	5	2	**46**
1891	1	2	1	1	1	5	3	3	6	9	5	6	**43**
1892	...	1	...	1	3	7	8	13	8	6	1	3	**51**

CHAP. IV.
RAINFALL.

Statement of Rainfall at different stations in inches.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Kangundi.	1877 ...	...	...	0·15	0·37	5·55	1·20	...	0·50	13·27	9·80	3·20	...	**34·04**
	1878 ...	...	...	...	1·70	0·30	3·10	6·70	8·90	2·60	3·40	5·60	0·30	**32·60**
	1879 ...	0·40	1·30	1·92	1·82	3·54	2·20	7·82	1·55	4·39	6·10	1·00	...	**32·04**
	1880 ...	1·00	0·45	...	0·50	6·60	0·70	1·50	8·90	1·25	11·45	4·95	0·60	**37·90**
	1881 ...	...	...	...	...	1·90	0·38	0·33	6·52	11·35	0·18	3·25	0·20	**24·11**
	1882 ...	0·30	...	...	0·40	5·48	1·15	2·00	8·85	3·50	1·60	13·02	...	**36·30**
	1883 ...	...	...	...	0·20	6·10	1·25	1·75	9·85	1·50	13·30	2·30	2·90	**39·15**
	1884 ...	0·05	...	...	0·60	2·60	1·30	...	3·20	2·05	8·85	4·40	3·45	**26·50**
	1885 ...	...	...	0·85	...	1·29	1·55	2·00	1·30	4·40	8·05	1·40	2·10	**22·94**
	1886 ...	...	...	1·40	...	3·84	2·45	4·32	7·80	8·14	3·34	2·31	0·83	**34·43**
	1887 ...	...	...	...	0·77	5·38	2·77	0·93	6·35	2·19	7·91	6·04	3·04	**35·38**
	1888 ...	...	...	...	0·05	4·60	4·75	1·15	0·90	8·61	6·75	3·80	0·25	**30·86**
	1889 ...	0·40	...	...	0·90	...	2·65	0·65	6·60	10·75	8·90	1·50	2·80	**35·15**
	AVERAGE—1877–89.	**0·17**	**0·13**	**0·33**	**0·56**	**3·63**	**1·96**	**2·24**	**5·48**	**5·69**	**6·89**	**4·06**	**1·27**	**32·41**
	1890 ...	...	...	0·80	0·30	4·90	1·00	1·13	2·40	4·70	4·80	2·05	0·35	**22·43**
	1891 ...	0·40	0·30	0·20	0·25	...	2·30	0·75	1·35	1·50	11·10	1·35	0·95	**20·45**
	1892 ...	...	0·50	...	2·05	4·35	3·70	4·80	7·19	1·05	3·50	2·45	0·30	**29·89**
Venkatagirikóta.	1877 ...	...	...	1·30	0·75	2·57	3·35	0·10	1·55	11·10	4·65	3·00	0·25	**28·62**
	1878 ...	...	...	...	...	2·55	1·07	4·30	9·65	5·50	4·80	6·95	0·30	**35·12**
	1879 ...	0·50	1·80	0·75	...	4·34	1·30	2·70	3·75	2·85	6·50	0·70	...	**25·19**
	1880 ...	0·25	...	...	0·57	5·82	0·15	1·50	6·23	1·20	4·79	6·40	2·91	**29·82**
	1881 ...	...	...	...	0·50	2·27	1·90	0·20	9·25	12·30	2·40	5·95	...	**34·77**
	1882 ...	0·70	...	...	0·10	2·35	...	0·90	14·45	3·40	1·25	10·90	...	**34·05**
	1883 ...	...	...	0·30	...	2·95	0·30	1·15	5·95	4·80	10·00	4·95	3·70	**34·10**
	1884 ...	...	...	...	0·78	0·12	1·20	0·20	3·40	0·80	9·45	3·10	...	**19·05**
	1885 ...	...	...	0·72	...	3·50	1·00	0·80	1·50	3·15	8·13	0·90	3·50	**23·20**
	1886 ...	...	...	...	...	5·80	2·20	2·40	3·65	6·65	1·55	3·50	...	**25·75**
	1887 ...	...	...	...	...	1·60	3·15	...	7·15	1·50	5·50	12·60	5·80	**37·30**
	1888 ...	...	...	...	...	5·10	3·75	0·50	0·80	6·80	3·11	10·21	0·71	**30·98**
	1889 ...	0·31	...	...	...	1·10	0·90	2·00	3·10	5·30	7·76	0·55	1·90	**22·92**
	AVERAGE—1877–89.	**0·13**	**0·14**	**0·23**	**0·21**	**3·08**	**1·56**	**1·29**	**5·42**	**5·03**	**5·38**	**5·36**	**1·47**	**29·3[illegible]**
	1890 ...	0·20	...	0·20	0·10	4·00	0·30	2·80	1·30	4·60	7·40	1·20	...	**22·10**
	1891 ...	0·60	0·68	...	1·70	0·98	2·51	0·65	2·40	2·60	8·59	0·52	1·58	**22·81**
	1892 ...	...	...	0·04	0·53	5·22	6·33	5·44	7·63	5·40	3·39	1·45	1·64	**37·07**

Number of Wet days.

Recording stations.	Years.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Kangundi.	1877	...	...	...	1	1	8	1	...	2	15	13	4	...	**45**
	1878	...	...	...	...	1	1	4	8	11	5	6	3	1	**40**
	1879	...	1	1	3	4	5	5	9	2	6	7	1	...	**44**
	1880	...	1	1	...	2	12	2	2	7	2	15	7	3	**54**
	1881	...	...	...	..	...	4	1	2	10	7	1	8	1	**34**
	1882	...	1	...	...	1	8	2	9	13	5	4	10	...	**53**
	1883	...	...	...	...	1	11	2	4	10	2	9	5	3	**47**
	1884	...	...	...	...	1	4	4	...	8	4	10	7	4	**42**
	1885	...	...	...	2	...	3	5	3	2	5	9	2	3	**34**
	1886	...	...	...	1	...	6	3	4	7	8	5	4	3	**41**
	1887	...	...	...	...	2	6	5	2	9	6	10	12	5	**57**
	1888	...	...	...	...	...	5	4	5	2	15	9	6	2	**48**
	1889	...	1	...	...	2	...	4	2	5	5	9	1	4	**33**
	AVERAGE—1877–89.		...	...	**1**	**1**	**6**	**3**	**4**	**7**	**7**	**8**	**5**	**2**	**44**
	1890	...	...	...	2	1	6	4	3	4	6	8	4	1	**39**
	1891	..	1	1	2	1	...	4	2	1	3	11	4	3	**33**
	1892	...	...	1	...	6	7	6	10	12	2	6	3	1	**54**
Venkatagiri-kóta.	1877	...	...	...	2	1	3	5	1	3	12	8	4	1	**40**
	1878	...	...	...	...	...	4	2	9	14	10	10	6	1	**56**
	1879	...	2	1	2	...	6	2	6	5	3	7	1	...	**35**
	1880	...	1	...	...	1	10	1	4	5	3	11	8	6	**50**
	1881	..	...	...	...	1	4	5	1	12	8	3	5	...	**39**
	1882	...	2	...	...	1	5	...	2	7	4	2	11	...	**34**
	1883	...	...	...	1	...	6	1	4	8	4	8	6	2	**40**
	1884	...	...	...	...	1	1	2	1	5	1	12	6	...	**29**
	1885	...	...	...	1	...	3	2	2	2	7	10	2	7	**36**
	1886	...	...	...	...	...	5	3	3	4	6	3	2	...	**26**
	1887	...	...	...	...	...	2	5	...	8	2	5	13	5	**40**
	1888	...	...	...	...	...	4	4	1	3	7	4	9	2	**34**
	1889	...	1	...	...	...	3	2	2	4	5	10	1	4	**32**
	AVERAGE—1877–89.		...	...	**1**	...	**4**	**3**	**3**	**6**	**6**	**7**	**6**	**2**	**38**
	1890	...	1	...	1	1	7	1	3	1	3	10	3	...	**31**
	1891	...	1	3	...	1	2	8	4	4	3	13	3	5	**47**
	1892	...	...	...	..	2	9	8	10	12	7	6	3	3	**60**

CHAP. IV.
RAINFALL.

Statement of Rainfall at different stations in inches—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Palmanér.	1870 ...	0·20	...	0·50	0·45	1·10	4·80	2·85	4·80	6·20	11·80	2·20	...	34·90
	1871 ...	1·10	...	1·80	0·10	2·25	1·70	2·70	1·50	5·55	7·35	11·20	...	35·25
	1872 ...	...	0·60	...	...	9·65	0·40	2·25	5·97	7·57	2·80	9·00	1·80	40·04
	1873 ...	...	2·60	...	0·65	0·60	3·27	0·90	5·17	6·97	10·85	0·65	1·00	32·66
	1874 ...	...	...	...	...	8·82	5·85	7·61	1·03	17·41	11·23	3·11	0·75	55·81
	1875 ...	...	...	0·10	0·38	2·28	3·72	1·30	3·83	2·19	2·34	1·21	1·34	18·69
	1876 ...	...	...	0·42	0·17	1·02	1·39	3·45	2·27	1·42	0·65	1·35	..	12·14
	1877 ...	...	...	1·55	1·40	2·37	1·72	0·25	2·25	11·74	12·20	3·60	2·60	39·68
	1878 ...	...	...	...	0·70	3·74	0·97	5·30	10·47	7·91	5·50	5·98	0·68	41·25
	1879 ...	0·70	1·20	0·72	0·40	4·17	3·65	4·43	2·95	0·45	6·80	1·20	...	26·67
	1880 ...	...	0·02	...	2·21	2·49	0·07	0·75	9·70	0·87	4·69	8·74	1·05	34·59
	1881 ...	...	...	0·03	..	1·85	1·71	1·55	16·53	9·29	4·65	7·63	...	43·24
	1882 ...	1·80	...	...	1·20	2·02	0·17	1·46	6·38	6·38	2·93	15·15	...	37·49
	1883 ...	...	...	..	...	5·00	3·05	2·31	7·18	7·95	15·84	6·54	4·67	52·54
	1884 ...	...	0·60	...	1·30	2·13	3·08	0·95	4·01	1·27	14·84	4·28	4·60	37·06
	1885 ...	...	...	...	0·40	1·50	1·65	1·18	0·53	6·78	9·93	4·22	4·85	31·04
	1886 ...	...	...	1·00	...	6·55	2·48	6·04	5·51	6·00	5·70	3·10	0·46	36·84
	1887 ...	...	...	...	...	1·60	6·70	...	2·32	9·58	5·81	6·40	5·52	37·93
	1888 ...	...	...	...	0·27	4·45	1·85	1·27	3·45	13·09	5·95	8·48	0·80	39·61
	1889 ...	...	...	0·54	2·93	0·90	2·40	3·00	8·90	12·60	16·30	0·35	3·62	51·54
	AVERAGE—1870–89.	**0·19**	**0·25**	**0·33**	**0·63**	**3·22**	**2·53**	**2·48**	**5·24**	**7·06**	**7·91**	**5·22**	**1·69**	**36·75**
	1890 ...	...	...	0·15	0·45	3·42	15·13	2·87	4·69	7·45	7·83	1·78	0·27	44·04
	1891 ...	0·17	0·82	1·95	0·55	1·50	3·65	0·93	2·31	7·70	9·06	2·27	1·55	32·46
	1892 ...	...	...	0·05	0·05	2·60	4·65	7·20	9·43	11·35	4·70	2·25	1·77	44·05
Punganúr.	1873 ...	...	1·00	...	...	...	...	2·20	3·95	5·35	11·20	...	...	23·70
	1874 ...	...	...	...	...	5·50	...	3·80	...	4·50	10·40	0·40	...	24·60
	1875 ...	...	...	...	...	4·50	0·05	...	8·85	1·60	1·80	...	0·55	17·35
	1876 ...	...	...	0·70	...	0·80	5·10	4·15	1·75	2·70	0·70	0·35	...	16·25
	1877 ...	...	0·10	2·30	...	2·05	4·35	..	1·05	10·05	10·00	3·20	0·65	33·75
	1878 ...	...	...	...	2·00	4·55	1·70	6·05	9·20	2·40	9·35	4·90	0·85	41·00
	1879 ...	0·60	1·35	2·90	...	6·40	4·05	3·90	2·40	0·90	4·90	0·45	...	27·85
	1880 ...	..	...	...	1·30	2·10	2·10	0·88	5·27	2·71	4·60	9·15	0·15	28·26
	1881 ...	...	...	0·30	0·05	2·40	0·65	0·25	8·67	4·77	1·08	4·14	0·10	22·41
	1882 ...	0·35	...	...	0·85	4·00	...	3·01	6·06	4·10	3·05	10·84	...	32·26
	1883 ...	...	...	...	0·30	1·97	2·10	3·01	8·53	4·87	6·90	13·23	3·55	44·46
	1884 ...	...	...	0·15	...	0·70	0·90	0·75	1·90	1·60	11·40	5·25	2·80	25·45
	1885 ...	...	...	...	...	3·25	2·25	0·90	0·60	0·30	9·12	3·50	3·70	23·62
	1886 ...	...	...	0·35	...	6·00	1·05	9·10	5·85	6·50	6·35	3·00	0·30	38·50
	1887 ...	...	...	...	...	2·00	3·00	...	1·55	6·15	7·45	10·40	3·40	33·95
	1888 ...	...	...	...	0·80	3·50	1·00	1·05	3·30	1·20	3·65	8·50	...	23·00
	1889 ...	...	...	0·10	2·80	0·65	3·30	3·30	4·45	7·45	7·55	0·85	2·65	33·10
	AVERAGE—1873–89.	**0·06**	**0·14**	**0·40**	**0·48**	**2·96**	**1·86**	**2·49**	**4·32**	**3·95**	**6·44**	**4·60**	**1·10**	**28·80**
	1890 ...	...	...	0·50	0·95	0·35	2·60	2·05	2·50	3·50	6·40	3·00	0·80	22·65
	1891 ...	...	...	0·50	0·50	0·55	1·78	1·40	1·90	1·35	4·80	0·60	1·15	14·53
	1892 ...	...	...	...	1·05	0·25	9·40	5·05	5·30	3·95	6·40	0·65	0·75	32·80

Number of Wet days—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Palmanér	1870	1	...	1	1	5	7	9	6	9	13	4	...	**56**
	1871	1	...	1	1	4	2	3	3	8	6	11	...	**40**
	1872	...	1	...	...	5	3	5	12	9	6	7	7	**55**
	1873	...	3	...	2	2	5	1	9	4	12	2	3	**43**
	1874	...	...	...	...	8	8	7	4	16	13	6	3	**65**
	1875	...	...	1	2	4	6	2	10	6	6	5	4	**46**
	1876	...	...	1	1	4	4	7	4	5	4	2	...	**32**
	1877	...	...	2	2	5	4	2	6	16	18	10	2	**67**
	1878	...	...	...	1	8	4	11	11	11	11	7	3	**67**
	1879	1	1	2	1	5	4	11	6	2	10	5	...	**48**
	1880	...	...	...	5	10	...	1	8	3	11	12	3	**53**
	1881	...	...	...	...	4	4	2	17	7	4	8	...	**46**
	1882	4	...	...	1	6	1	7	11	10	5	12	...	**57**
	1883	...	...	...	...	8	4	4	7	4	10	6	4	**47**
	1884	...	1	...	1	4	3	2	6	3	10	10	4	**44**
	1885	...	...	...	1	3	6	3	2	8	12	4	6	**45**
	1886	...	...	1	...	6	7	8	7	10	8	6	2	**55**
	1887	...	...	...	...	4	8	...	4	8	9	10	6	**49**
	1888	...	...	...	1	2	3	4	5	9	6	8	1	**39**
	1889	...	...	1	4	1	4	6	8	11	13	1	5	**54**
	AVERAGE—1870–89. ...	...	...	**1**	**1**	**5**	**4**	**5**	**7**	**8**	**9**	**7**	**3**	**50**
	1890	...	...	1	2	6	8	5	7	7	10	5	3	**54**
	1891	2	4	1	2	2	7	3	4	5	9	2	3	**44**
	1892	...	...	...	...	7	7	10	11	10	4	1	2	**52**
Punganúr	1873	No record.												
	1874													
	1875													
	1876													
	1877	...	1	3	...	6	4	...	4	13	12	3	1	**47**
	1878	...	...	...	1	1	7	8	4	6	4	2	1	**34**
	1879	1	1	1	...	5	6	8	5	3	7	3	...	**40**
	1880	...	...	...	3	5	3	4	4	5	10	11	1	**46**
	1881	...	...	1	...	3	3	1	7	9	4	9	1	**38**
	1882	2	...	...	1	7	...	10	10	5	5	10	...	**50**
	1883	...	...	...	1	4	2	6	8	4	10	9	4	**48**
	1884	...	...	1	...	2	2	2	3	4	13	10	3	**40**
	1885	...	...	...	...	5	5	3	3	1	15	5	7	**44**
	1886	...	...	1	...	9	5	12	8	8	8	3	1	**55**
	1887	...	...	...	...	2	3	...	4	7	13	12	4	**45**
	1888	...	...	...	1	1	2	2	2	4	6	9	...	**27**
	1889	...	...	1	5	3	2	6	8	11	9	3	5	**53**
	AVERAGE—1877–89. ...	...	...	**1**	**1**	**4**	**4**	**5**	**5**	**6**	**9**	**7**	**2**	**44**
	1890	...	...	2	2	2	6	7	4	7	8	2	3	**43**
	1891	...	...	1	1	1	4	4	5	3	8	1	5	**33**
	1892	...	...	...	1	1	9	9	8	8	7	2	2	**47**

CHAP. IV.
RAINFALL.

Statement of Rainfall at different stations in inches—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Chendragiri.	1870 ...	2·05	...	0·20	0·02	1·01	1·85	1·75	5·20	4·25	14·50	0·90	...	**31·73**
	1871 ...	...	...	...	0·85	3·00	2·70	7·35	1·70	9·70	1·65	9·90	0·25	**37·10**
	1872 ...	...	...	...	...	5·50	1·20	2·10	5·70	0·60	6·70	9·60	2·00	**33·40**
	1873 ...	...	4·05	...	0·50	...	...	1·25	6·00	3·70	7·25	0·80	1·90	**25·45**
	1874 ...	...	...	...	...	5·70	3·70	4·25	1·17	11·37	13·05	6·85	1·50	**47·59**
	1875 ...	...	...	1·90	...	2·65	5·77	2·05	7·20	4·20	2·85	1·70	1·80	**30·12**
	1876 ...	...	...	...	...	0·40	3·65	0·80	2·55	1·30	...	0·55	...	**9·25**
	1877 ...	...	0·15	0·30	1·95	2·60	5·45	...	...	12·77	5·85	7·90	...	**36·97**
	1878 ...	...	...	0·15	2·00	0·95	...	9·00	6·00	5·50	3·00	1·60	...	**28·20**
	1879 ...	2·90	...	2·00	0·05	4·55	2·05	1·22	1·68	0·22	13·40	4·62	...	**32·69**
	1880 ...	...	...	...	1·20	3·78	2·33	1·67	6·04	7·50	5·38	14·00	0·96	**42·86**
	1881 ...	...	...	...	...	1·87	3·37	1·00	7·54	6·34	4·45	8·10	2·10	**34·77**
	1882 ...	0·50	...	0·35	0·30	0·75	3·65	1·55	2·90	3·10	1·45	21·00	0·40	**35·95**
	1883 ...	...	...	...	1·65	0·55	1·32	3·95	3·70	6·40	11·62	6·35	6·50	**42·04**
	1884 ...	...	...	0·30	...	0·40	2·40	1·35	3·38	4·05	11·85	10·30	6·25	**40·28**
	1885 ...	...	...	...	...	0·20	2·30	2·30	2·20	1·50	2·12	14·55	5·40	**30·57**
	1886 ...	...	...	0·75	...	4·40	0·96	6·89	5·70	1·40	5·75	7·05	0·32	**33·22**
	1887 ...	...	...	...	...	1·15	3·90	0·93	2·22	4·70	11·25	7·90	11·20	**43·25**
	1888 ...	...	...	...	0·03	3·25	1·30	1·40	5·45	3·25	3·55	8·65	0·62	**27·50**
	1889 ...	...	...	...	1·20	...	4·70	5·47	7·19	7·43	6·50	2·70	4·70	**39·89**
	AVERAGE—1870-89.	**0·27**	**0·21**	**0·30**	**0·49**	**2·14**	**2·63**	**2·81**	**4·18**	**4·96**	**6·61**	**7·25**	**2·29**	**34·14**
	1890 ...	...	...	...	0·50	0·65	2·40	2·27	6·75	3·05	3·15	3·05	0·95	**22·77**
	1891 ...	...	1·20	...	0·30	0·25	0·60	0·20	1·20	3·75	5·90	7·70	3·70	**24·80**
	1892 ...	...	...	...	...	1·55	6·00	1·30	8·80	3·51	3·20	0·15	2·85	**27·36**
Tirupati.	1886 ...	...	...	0·70	...	5·10	2·52	8·85	3·38	3·13	3·67	10·24	0·69	**38·28**
	1887 ...	...	...	0·10	...	1·97	2·60	0·57	1·10	2·90	10·64	7·38	10·64	**37·90**
	1888 ...	...	...	...	...	5·90	0·40	0·65	6·87	4·55	3·55	16·70	0·30	**38·92**
	1889 ...	...	...	...	0·40	0·25	2·40	3·20	3·70	4·20	8·96	1·85	5·10	**30·06**
	1890 ...	...	...	...	0·35	0·40	2·17	2·90	4·35	3·55	3·15	3·90	0·50	**21·27**
	1891 ...	...	1·70	...	..	...	1·90	0·40	1·70	4·40	4·75	4·65	2·50	**22·00**
	1892 ...	...	...	...	...	0·60	6·10	3·00	7·40	2·90	5·70	...	3·50	**29·20**

Number of Wet days—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Chendragiri.	1870	3	...	1	1	1	13	5	6	6	9	2	...	**47**
	1871	...	...	...	2	3	4	6	2	10	3	10	1	**41**
	1872	...	...	...	...	3	3	6	6	1	4	8	4	**35**
	1873	...	3	...	1	...	...	2	8	4	9	2	3	**32**
	1874	...	...	...	...	2	3	8	2	12	7	7	3	**44**
	1875	...	...	1	...	4	3	3	9	3	5	2	4	**34**
	1876	...	...	...	...	2	4	2	4	2	...	2	...	**16**
	1877	...	1	1	2	4	5	...	...	12	8	8	...	**41**
	1878	..	...	1	1	3	...	12	11	9	2	4	...	**43**
	1879	1	...	2	...	6	4	5	4	1	11	4	...	**38**
	1880	...	...	...	2	10	8	5	7	7	7	17	2	**65**
	1881	...	...	...	...	3	5	2	13	8	4	9	3	**47**
	1882	2	...	1	1	4	6	6	8	5	6	11	1	**51**
	1883	...	...	...	1	2	6	6	7	3	12	8	4	**49**
	1884	...	...	1	...	1	4	3	8	5	9	11	6	**48**
	1885	...	...	...	...	1	3	4	2	2	5	6	7	**30**
	1886	...	...	1	...	3	2	6	4	2	11	4	1	**34**
	1887	...	...	...	...	2	7	3	7	7	12	12	8	**58**
	1888	...	...	...	...	2	3	6	9	4	4	7	2	**37**
	1889	...	...	...	1	...	3	6	8	8	6	2	4	**38**
	AVERAGE—1870–89.	...	...	...	**1**	**3**	**4**	**5**	**6**	**5**	**7**	**7**	**3**	**41**
	1890	...	...	...	1	3	2	4	5	2	6	5	1	**29**
	1891	...	2	...	1	1	3	1	2	5	6	5	7	**33**
	1892	...	...	...	...	4	8	5	10	4	5	1	4	**41**
Tirupati.	1886	...	...	1	...	4	6	12	8	6	7	4	3	**51**
	1887	...	...	1	...	3	5	1	1	5	11	13	8	**48**
	1888	...	...	...	...	4	2	2	8	6	8	11	1	**42**
	1889	...	...	...	1	1	4	7	7	11	7	2	5	**45**
	1890	...	...	...	1	3	6	6	7	4	4	5	1	**37**
	1891	...	2	...	...	...	4	3	2	5	7	5	5	**33**
	1892	...	...	...	...	2	6	9	12	7	8	...	3	**47**

CHAP. IV.
RAINFALL.

Statement of Rainfall at different stations in inches—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Kálahasti.	1877 ...	...	...	...	...	9·70	1·50	2·00	1·15	6·95	21·45	7·30	3·80	**53·85**
	1878 ...	...	...	...	...	1·15	2·15	6·20	7·25	2·60	1·60	2·69	3·20	**26·84**
	1879 ...	4·00	...	...	...	3·95	0·61	1·60	2·85	2·20	7·19	6·19	0·60	**29·19**
	1880 ...	...	...	...	0·35	1·85	2·60	2·90	1·65	2·80	7·40	23·75	3·50	**46·80**
	1881 ...	0·30	...	...	...	3·30	1·90	0·50	10·15	9·30	0·90	14·00	7·15	**47·50**
	1882 ...	2·20	...	...	...	1·45	2·40	1·15	2·45	2·10	7·80	28·35	...	**47·90**
	1883 ...	...	...	...	...	1·10	4·47	3·15	2·75	1·30	14·84	11·60	9·80	**49·01**
	1884 ...	1·10	...	...	...	...	1·80	1·02	4·20	3·60	13·00	28·60	9·15	**62·47**
	1885 ...	...	...	1·50	...	...	0·70	0·90	2·25	1·50	3·10	29·20	11·10	**50·25**
	1886 ...	...	...	1·00	...	4·92	4·55	7·35	3·20	5·35	5·60	10·00	1·00	**42·97**
	1887 ...	...	...	...	...	0·20	1·97	0·15	2·21	2·80	29·50	20·35	11·40	**68·58**
	1888 ...	0·25	...	...	...	2·55	1·00	1·20	2·70	2·05	5·54	12·47	1·69	**29·45**
	1889 ...	...	...	...	0·62	1·70	3·78	4·50	1·37	4·45	7·13	3·40	9·94	**36·89**
	AVERAGE—1877-89.	**0·61**	...	**0·19**	**0·08**	**2·45**	**2·26**	**2·51**	**3·40**	**3·62**	**9·62**	**15·22**	**5·56**	**45·52**
	1890 ...	0·20	...	...	...	0·97	4·87	2·88	1·12	1·85	5·85	4·70	1·70	**24·14**
	1891 ...	1·60	1·70	...	...	0·70	1·35	2·58	2·07	1·65	6·48	1·67	11·42	**31·22**
	1892 ...	...	0·30	...	...	0·25	4·71	9·33	8·85	6·40	3·40	...	3·90	**37·14**
Mádarpák.	1877 ...	...	...	...	...	7·90	1·95	0·80	3·43	6·66	8·70	13·34	5·90	**48·68**
	1878 ...	0·19	...	...	0·01	1·25	2·77	6·53	10·97	5·30	5·35	2·58	1·14	**36·09**
	1879 ...	2·35	...	1·28	...	12·00	1·85	1·60	3·18	1·85	13·12	12·89	0·30	**50·42**
	1880 ...	0·52	3·90	...	...	0·90	1·73	5·01	3·27	6·64	5·37	21·10	3·40	**51·84**
	1881 ...	2·40	...	0·10	...	2·20	3·70	0·60	7·85	4·56	1·55	11·17	4·99	**39·12**
	1882 ...	0·90	...	...	..	0·10	1·73	3·77	4·73	2·02	5·45	26·04	0·42	**45·16**
	1883 ...	0·17	...	...	...	0·72	3·02	7·28	1·23	2·07	14·45	8·19	10·16	**47·29**
	1884 ...	3·05	...	...	...	1·10	1·58	1·64	2·62	5·93	12·68	36·46	11·35	**76·41**
	1885 ...	...	...	...	...	0·56	2·32	0·81	2·85	3·22	1·16	24·43	11·49	**46·84**
	1886 ...	...	...	2·30	...	6·35	3·46	7·92	5·45	4·45	9·75	10·27	1·58	**51·53**
	1887 ...	...	...	...	...	0·30	4·43	3·14	3·79	6·85	22·47	11·47	8·90	**61·35**
	1888 ...	0·15	...	...	...	7·40	1·10	0·80	5·01	2·30	16·17	8·00	1·70	**42·63**
	1889 ...	0·10	...	...	0·46	0·10	1·11	4·34	3·13	4·95	15·24	3·92	10·62	**43·97**
	AVERAGE—1877-89.	**0·75**	**0·30**	**0·28**	**0·04**	**3·14**	**2·37**	**3·40**	**4·42**	**4·37**	**10·11**	**14·61**	**5·54**	**49·33**
	1890 ...	0·46	...	...	0·75	0·70	4·42	3·95	1·28	4·30	5·35	2·92	2·10	**26·23**
	1891 ...	1·10	0·90	...	0·50	0·19	0·95	0·60	2·24	1·75	10·20	6·30	11·10	**35·83**
	1892 ...	...	...	...	0·15	0·30	3·75	3·82	6·18	5·80	9·38	...	3·36	**32·74**

Number of Wet days—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Kála-hasti.	1877	...	...	...	...	3	2	2	3	8	9	10	5	42
	1878	...	...	...	...	2	3	10	12	8	5	4	5	49
	1879	3	...	..	...	4	1	4	10	1	12	8	2	45
	1880	...	...	...	1	4	6	7	5	3	7	18	6	57
	1881	1	...	...	...	2	4	1	12	8	2	7	7	44
	1882	2	...	...	..	2	5	1	2	3	8	11	...	34
	1883	...	...	...	...	1	5	8	6	2	15	9	5	51
	1884	1	...	...	...	...	4	1	3	6	9	13	6	43
	1885	...	...	1	...	...	2	2	2	4	3	8	4	26
	1886	...	...	1	...	4	6	7	5	6	10	6	3	48
	1887	...	...	...	...	1	4	1	4	3	14	15	6	48
	1888	1	...	...	...	3	1	3	8	4	7	9	2	38
	1889	...	...	..	1	1	11	6	4	6	8	4	7	48
	AVERAGE—1877-89.	1	...	...	...	2	4	4	6	5	8	9	5	44
	1890	1	...	...	...	2	9	7	3	4	7	5	3	41
	1891	1	2	...	...	2	4	6	3	6	8	3	9	44
	1892	...	1	...	...	2	5	10	12	5	6	...	3	44
Mádar-pák.	1877	...	...	...	...	4	3	1	1	11	12	14	5	51
	1878	2	...	...	...	2	5	7	16	9	6	5	3	55
	1879	3	...	2	...	4	5	6	11	2	16	9	1	59
	1880	2	1	...	...	1	5	9	7	6	5	21	6	63
	1881	1	...	1	...	3	7	3	15	12	4	11	7	64
	1882	2	...	...	...	1	6	13	9	3	8	13	2	57
	1883	1	...	...	...	1	5	11	6	4	18	10	5	61
	1884	3	...	...	...	1	2	5	9	10	13	16	10	69
	1885	...	...	...	...	1	4	5	6	8	4	8	6	42
	1886	...	...	1	...	5	10	12	8	5	14	9	3	67
	1887	...	...	...	...	1	7	5	5	8	12	16	7	61
	1888	1	...	...	...	2	2	1	8	3	11	7	2	37
	1889	1	...	...	1	1	4	10	8	9	5	6	7	52
	AVERAGE—1877-89.	1	...	...	...	2	5	7	9	7	10	11	5	57
	1890	1	...	.	1	1	8	8	3	8	9	5	1	45
	1891	1	1	...	1	1	4	3	4	6	12	7	11	51
	1892	..	...	...	1	1	6	10	12	9	11	...	4	54

CHAP. IV.
RAINFALL.

Statement of Rainfall at different stations in inches—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Puttúr.	1877 ...	...	...	1·50	...	5·80	5·20	...	1·00	9·90	11·40	2·95	0·90	**38·65**
	1878 ...	...	...	...	0·80	0·95	5·80	6·77	17·62	9·20	5·85	1·25	0·55	**48·79**
	1879 ...	2·35	...	1·25	1·05	11·50	6·70	3·60	2·25	0·85	6·55	8·20	...	**44·30**
	1880 ...	...	0·70	...	0·40	1·75	4·55	1·86	2·37	2·30	6·45	10·36	2·54	**33·28**
	1881 ...	...	...	...	...	1·18	3·80	0·70	10·00	5·90	1·67	8·00	4·25	**35·50**
	1882 ...	1·05	...	0·10	0·55	0·70	4·03	4·40	7·77	3·10	3·00	31·70	0·20	**56·60**
	1883 ...	...	...	...	...	1·90	6·58	6·60	7·77	1·60	11·55	6·85	6·00	**48·85**
	1884 ...	2·00	...	1·10	...	0·25	2·35	3·18	7·77	4·50	11·85	16·90	7·55	**57·45**
	1885 ...	...	...	0·55	...	1·15	2·00	2·30	6·90	2·40	3·15	16·65	4·90	**40·00**
	1886 ...	..	...	...	...	6·70	1·15	6·80	6·60	3·30	4·95	9·50	1·00	**40·00**
	1887 ...	...	...	...	...	0·30	3·85	2·55	2·60	6·20	17·15	5·20	6·35	**44·20**
	1888 ...	...	...	...	...	3·25	1·45	2·65	4·80	6·48	4·25	15·20	0·40	**38·48**
	1889 ...	...	...	...	0·10	1·12	5·51	3·92	5·20	7·25	9·50	3·70	7·35	**43·65**
	AVERAGE—1877–89.	**0·42**	**0·05**	**0·35**	**0·22**	**2·81**	**4·07**	**3·49**	**6·36**	**4·84**	**7·49**	**10·50**	**3·23**	**43·83**
	1890 ...	...	...	0·15	1·47	1·66	3·71	3·23	4·55	3·15	3·97	1·43	0·66	**23·98**
	1891 ...	...	0·40	0·07	0·40	0·15	0·52	0·64	4·55	5·40	4·72	2·03	6·48	**25·36**
	1892 ...	...	0·06	...	0·05	0·81	4·46	7·79	12·97	3·27	7·12	0·05	1·52	**38·10**
Tiruttani.	1877 ...	...	...	0·25	...	4·35	2·85	1·85	4·80	6·00	6·77	5·55	1·75	**34·17**
	1878 ...	...	...	...	1·90	0·25	2·75	3·30	9·25	6·75	2·87	0·95	1·05	**29·07**
	1879 ...	1·37	...	0·75	...	1·40	7·45	3·75	4·70	8·76	12·05	4·45	...	**44·68**
	1880 ...	0·30	...	...	1·11	2·35	1·26	2·40	2·31	4·75	6·10	15·85	0·70	**37·13**
	1881 ...	...	...	0·15	...	1·20	2·55	0·25	9·10	4·30	1·00	8·47	1·45	**28·47**
	1882 ...	0·80	...	...	...	2·00	2·50	2·15	8·00	1·95	3·90	27·40	...	**48·70**
	1883 ...	...	...	...	...	2·20	2·96	4·00	4·84	1·20	10·77	10·30	5·80	**42·07**
	1884 ...	0·25	...	...	...	...	1·90	2·90	4·97	3·65	11·85	15·70	8·50	**49·72**
	1885 ...	...	...	2·10	...	2·60	4·05	0·60	2·25	1·95	2·30	12·50	3·95	**32·30**
	1886 ...	...	...	0·45	...	7·00	3·35	7·30	4·00	3·45	7·45	6·35	0·95	**40·30**
	1887 ...	...	...	...	0·10	0·80	3·57	0·77	3·26	4·12	11·55	9·80	4·30	**38·27**
	1888 ...	...	...	...	...	3·35	2·25	5·00	5·25	5·10	4·73	12·82	1·95	**40·45**
	1889 ...	...	...	...	0·48	0·57	6·07	2·30	4·90	6·85	4·51	3·35	5·35	**34·38**
	AVERAGE—1877–89.	**0·21**	...	**0·26**	**0·28**	**2·16**	**3·35**	**2·81**	**5·20**	**4·53**	**6·60**	**10·27**	**2·75**	**38·42**
	1890 ...	0·07	...	0·25	4·45	1·02	4·53	6·85	1·50	3·80	5·55	6·75	1·90	**36·67**
	1891 ...	0·25	0·15	0·05	...	1·15	3·32	1·72	1·95	5·35	4·95	3·10	4·90	**26·89**
	1892 ...	...	1·60	0·29	...	1·50	2·95	3·15	8·60	9·50	5·90	1·10	1·14	**35·73**

Number of Wet days—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Puttúr	1877	...	...	1	...	2	4	...	1	11	11	5	2	**37**
	1878	...	...	...	1	4	7	8	15	11	7	3	1	**57**
	1879	1	...	2	2	3	6	4	4	1	10	6	...	**39**
	1880	...	2	...	1	3	6	6	6	4	9	16	5	**58**
	1881	...	...	...	...	3	6	2	12	11	2	5	6	**47**
	1882	1	...	1	1	2	5	10	15	4	6	13	1	**59**
	1883	...	...	...	...	6	7	9	10	2	13	7	6	**60**
	1884	2	...	1	...	1	7	5	10	8	10	10	7	**61**
	1885	...	...	1	...	2	3	6	9	3	3	6	6	**39**
	1886	...	...	...	..	5	3	3	7	5	4	5	1	**33**
	1887	...	...	...	...	1	5	3	6	5	15	12	9	**56**
	1888	...	...	...	...	2	5	8	10	7	9	5	1	**47**
	1889	...	...	...	1	2	8	9	8	8	12	4	6	**58**
	AVERAGE—1877–89.	...	...	...	...	**3**	**6**	**6**	**9**	**6**	**9**	**7**	**4**	**50**
	1890	...	...	2	2	3	10	8	7	6	8	5	2	**53**
	1891	...	2	1	1	1	2	1	3	6	7	4	9	**37**
	1892	...	...	...	...	3	10	11	16	8	10	...	3	**61**
Tiruttani.	1877	...	...	1	...	4	4	4	6	8	9	9	2	**47**
	1878	...	...	...	4	2	4	8	10	8	3	2	4	**45**
	1879	2	...	2	...	1	6	3	10	4	8	3	...	**39**
	1880	2	...	...	2	4	3	5	4	7	7	11	1	**46**
	1881	...	...	1	...	3	3	1	9	5	1	7	2	**32**
	1882	1	...	...	...	4	2	3	6	4	8	8	...	**36**
	1883	...	...	...	...	2	5	4	8	1	13	8	5	**46**
	1884	1	...	...	...	...	2	11	7	9	10	12	6	**58**
	1885	...	...	1	...	3	6	2	7	4	4	6	3	**36**
	1886	...	..	1	...	5	4	6	6	5	8	8	3	**46**
	1887	...	...	...	1	3	7	2	6	9	10	12	10	**60**
	1888	...	...	...	...	3	3	7	10	5	6	11	4	**49**
	1889	...	...	...	1	1	12	6	8	7	7	4	6	**52**
	AVERAGE—1877–89.	...	...	...	**1**	**3**	**5**	**5**	**7**	**6**	**7**	**8**	**4**	**46**
	1890	1	...	1	1	2	8	8	5	9	9	10	3	**57**
	1891	1	2	1	...	3	5	4	3	7	10	8	7	**51**
	1892	...	1	1	...	6	6	7	10	6	6	1	4	**48**

Statement of Rainfall at different stations in inches—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Arkonam.	1883 ...	...	...	...	...	0·20	4·20	3·00	3·55	2·70	2·10	9·90	3·35	**29·00**
	1884 ...	...	...	...	...	1·80	1·70	2·85	4·52	4·60	13·05	17·05	8·21	**53·78**
	1885 ...	...	...	...	...	1·35	4·11	2·38	...	0·15	5·15	12·13	5·96	**31·23**
	1886 ...	...	...	0·90	...	6·30	5·94	5·46	3·95	4·56	5·84	4·06	1·30	**38·31**
	1887 ...	...	...	0·35	...	0·34	5·50	1·10	6·25	6·30	13·05	8·07	2·30	**43·26**
	1888 ...	...	...	...	...	5·00	1·00	7·80	5·90	3·15	6·20	12·55	3·65	**45·25**
	1889 ...	...	..	...	0·50	...	2·15	3·46	4·77	4·60	5·75	2·20	6·68	**30·11**
	1890 ...	0·20	...	...	1·50	0·70	4·30	4·55	1·80	3·95	3·75	3·00	0·60	**24·35**
	1891 ...	0·85	0·72	0·10	0·55	0·10	1·15	1·75	2·00	5·90	3·65	1·85	5·57	**24·19**
	1892 ...	0·10	0·55	0·10	...	0·20	3·15	3·45	5·77	5·80	5·05	...	2·30	**26·47**
Gudiyáttam.	1870 ...	0·30	...	1·10	...	1·05	3·60	4·55	5·90	3·75	8·90	0·75	0·10	**30·00**
	1871 ...	0·40	...	2·00	0·05	1·80	1·25	4·40	2·17	6·95	7·65	12·75	...	**39·42**
	1872 ...	...	...	...	...	8·40	0·30	3·10	9·50	4·50	7·75	11·80	1·90	**47·25**
	1873 ...	...	3·60	...	0·60	0·75	0·40	0·30	8·05	10·30	9·52	1·55	1·45	**36·52**
	1874 ...	...	...	1·10	...	8·82	5·77	5·20	2·30	23·70	11·35	1·15	0·55	**59·94**
	1875 ...	...	...	...	..	3·70	1·90	1·85	8·40	5·05	5·58	0·10	1·10	**27·68**
	1876 ...	...	...	0·45	0·40	1·22	2·15	1·47	2·67	4·57	0·83	0·95	...	**14·71**
	1877 ...	...	...	0·47	0·23	2·01	3·74	0·98	2·04	13·11	9·29	3·18	2·76	**37·81**
	1878 ...	...	...	...	0·38	1·27	4·40	5·57	11·98	8·08	5·55	3·60	1·21	**42·04**
	1879 ...	0·75	3·20	0·89	0·30	4·50	2·16	7·93	2·97	5·08	8·74	1·91	0·45	**38·88**
	1880 ...	0·27	0·65	...	2·36	2·75	0·36	2·65	2·72	4·10	8·35	13·36	2·77	**40·34**
	1881 ...	...	...	...	...	0·58	1·00	0·92	7·43	10·71	3·16	4·58	1·26	**29·64**
	1882 ...	1·10	...	...	0·10	1·37	1·70	3·00	8·01	2·31	2·25	17·76	0·08	**37·68**
	1883 ...	...	...	...	0·35	2·34	3·60	2·87	5·31	5·90	8·73	7·49	4·74	**41·33**
	1884 ...	...	0·05	0·10	...	0·55	1·45	2·95	6·20	5·20	11·62	6·90	9·69	**44·71**
	1885 ...	...	...	...	...	1·45	1·35	2·03	1·32	3·34	6·65	5·08	7·79	**29·01**
	1886 ...	0·07	...	0·35	...	6·72	3·09	4·72	4·58	7·19	5·06	3·34	1·25	**36·37**
	1887 ...	...	...	0·60	...	2·15	7·18	0·35	7·39	4·87	6·81	12·87	6·76	**48·98**
	1888 ...	...	...	...	..	7·11	4·47	3·11	1·23	8·17	11·73	7·50	1·00	**44·32**
	1889 ...	0·60	...	1·00	4·65	...	5·35	6·41	4·10	10·95	7·95	0·36	3·60	**44·97**
	AVERAGE—1870–89.	**0·17**	**0·38**	**0·41**	**0·47**	**2·93**	**2·76**	**3·22**	**5·21**	**7·39**	**7·37**	**5·85**	**2·42**	**38·58**
	1890 ...	0·09	...	...	3·31	2·85	6·64	4·06	5·62	7·44	9·74	1·55	1·21	**42·51**
	1891 ...	0·60	0·93	...	...	0·65	2·71	0·61	1·52	5·57	6·33	1·33	2·35	**22·60**
	1892 ...	...	0·15	0·15	0·83	1·91	7·57	4·63	7·71	6·61	3·97	1·52	1·16	**36·21**

Number of Wet days—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Arkonam.	1883	No record.												
	1881													
	1885													
	1886	...	...	1	...	5	8	10	8	8	10	6	3	59
	1887	...	...	1	...	1	6	3	9	9	11	13	3	56
	1888	...	...	...	...	3	4	7	5	5	8	6	4	42
	1889	...	...	...	1	...	5	9	8	10	9	3	5	50
	1890	1	.	...	1	2	6	8	5	7	10	2	1	43
	1891	1	2	1	1	1	5	2	4	6	7	6	7	43
	1892	1	1	1	..	1	6	8	15	10	8	...	4	55
Gudiyáttam.	1870	1	...	1	...	2	9	10	8	10	12	3	1	57
	1871	1	...	1	...	3	3	5	5	10	9	11	...	48
	1872	...	...	...	...	2	1	4	16	11	8	13	6	61
	1873	...	4	...	2	2	1	2	14	9	12	3	5	54
	1874	...	...	1	...	7	7	10	6	16	15	3	4	69
	1875	...	...	...	...	9	5	4	11	9	9	1	4	52
	1876	...	...	1	1	4	8	5	5	8	3	2	...	37
	1877	...	...	1	1	2	10	3	7	17	10	6	2	59
	1878	...	...	...	1	3	7	11	16	8	8	6	3	63
	1879	1	1	1	2	4	5	11	7	6	13	4	2	57
	1880	2	1	...	3	9	1	5	5	7	10	11	3	57
	1881	...	...	...	...	2	5	3	12	7	3	6	3	41
	1882	3	...	...	1	5	3	6	12	5	3	12	...	50
	1883	...	...	...	2	5	8	6	10	5	12	10	3	61
	1884	...	...	1	...	1	3	3	6	7	12	12	6	51
	1885	...	...	...	...	3	5	4	3	7	9	4	8	43
	1886	...	...	1	...	7	4	10	9	11	6	4	3	55
	1887	...	...	1	...	3	7	1	8	6	9	12	7	54
	1888	...	...	...	...	6	4	5	4	9	10	11	4	53
	1889	1	...	1	5	...	6	8	7	8	8	2	5	51
	AVERAGE—1870-89.	...	...	1	1	4	5	6	9	9	9	7	3	54
	1890	1	...	...	2	7	6	8	8	10	11	7	3	63
	1891	1	3	1	...	2	7	3	3	5	10	3	4	42
	1892	...	1	1	2	6	8	6	14	10	4	2	2	56

Statement of Rainfall at different stations in inches—cont.

Recording stations.	Years.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Vellore.	1870	...	0·50	...	...	...	6·00	4·00	4·80	6·70	3·90	14·40	2·10	4·25	**46·65**
	1871	...	5·00	...	1·80	0·10	1·00	3·30	3·25	1·25	14·80	4·35	15·15	0·55	**50·55**
	1872	...	...	...	...	...	9·65	1·36	2·31	8·12	3·99	7·17	14·67	2·68	**49·95**
	1873	...	...	6·43	...	0·80	0·96	0·32	4·17	4·22	7·29	8·61	2·04	0·94	**35·78**
	1874	...	...	...	...	...	10·95	7·09	7·36	3·52	15·10	10·57	2·40	1·10	**58·09**
	1875	...	0·60	...	...	0·38	1·95	1·66	1·75	10·46	4·27	6·43	0·58	1·42	**29·50**
	1876	...	...	...	...	...	3·29	3·55	5·85	1·50	3·28	0·88	1·93	...	**20·28**
	1877	...	...	...	0·12	1·12	2·92	3·04	1·10	2·95	11·55	14·12	4·21	2·98	**44·11**
	1878	...	...	...	...	0·40	3·13	2·23	9·12	12·46	4·22	6·32	3·70	3·23	**44·81**
	1879	...	1·45	0·80	0·25	...	4·60	7·00	7·47	1·51	1·40	5·82	1·64	...	**31·94**
	1880	...	...	0·20	...	0·90	3·04	...	2·47	6·86	3·67	5·32	15·08	3·74	**41·28**
	1881	...	...	...	...	...	0·76	2·14	1·86	9·72	9·75	2·70	8·82	0·82	**36·57**
	1882	...	2·15	...	...	1·56	3·22	0·96	1·22	4·41	1·54	6·63	23·58	0·15	**45·42**
	1883	...	...	...	...	...	4·05	2·40	3·21	3·96	6·14	9·85	6·38	5·46	**41·45**
	1884	...	0·70	...	...	...	0·47	1·80	1·00	5·96	2·78	11·51	8·64	14·60	**47·46**
	1885	...	...	...	1·15	...	2·55	1·62	3·21	1·44	4·14	6·27	8·17	5·90	**34·45**
	1886	...	...	...	0·12	...	9·62	6·87	5·65	2·65	6·65	6·31	4·50	1·49	**43·86**
	1887	...	...	...	...	...	4·27	2·18	1·10	5·58	7·34	14·42	8·43	9·02	**52·34**
	1888	...	...	...	...	...	6·65	2·85	2·65	5·95	7·30	11·67	4·33	2·65	**44·05**
	1889	...	...	...	...	...	0·50	5·90	5·76	7·10	12·02	13·95	1·30	5·10	**51·63**
	AVERAGE—1870–89.		**0·52**	**0·37**	**0·17**	**0·26**	**3·98**	**3·01**	**3·77**	**5·32**	**6·56**	**8·36**	**6·88**	**3·30**	**42·50**
	1890	...	0·20	...	...	1·05	5·56	3·51	6·28	4·81	5·22	9·82	5·36	1·99	**43·80**
	1891	...	0·40	1·09	...	0·75	0·17	4·43	0·62	4·37	7·08	11·82	2·29	4·07	**37·09**
	1892	...	...	0·10	...	2·30	1·48	6·30	4·48	15·44	5·90	7·45	...	1·05	**44·50**
Chittoor.	1870	...	2·05	...	1·30	1·30	3·45	4·10	5·12	10·11	5·37	12·86	2·19	0·11	**47·96**
	1871	...	0·97	...	2·07	1·37	4·85	0·71	6·07	2·05	13·04	7·75	8·96	0·05	**47·89**
	1872	...	...	...	...	...	10·29	1·18	2·15	8·66	6·52	7·72	9·61	1·90	**48·03**
	1873	...	...	3·78	...	0·07	2·79	1·49	3·57	2·74	10·16	7·10	0·20	3·51	**35·41**
	1874	...	...	...	...	...	12·17	5·16	2·99	1·19	12·72	14·45	2·69	0·69	**52·06**
	1875	...	0·05	...	...	0·18	2·15	2·92	2·05	7·93	1·92	1·48	1·08	2·80	**22·56**
	1876	...	...	...	...	0·07	0·72	4·58	1·66	2·65	4·31	0·65	0·19	...	**14·83**
	1877	...	...	...	1·88	0·25	4·76	3·19	0·61	4·31	9·13	11·39	6·04	1·17	**42·73**
	1878	...	...	...	...	0·45	1·50	2·18	7·00	11·21	12·26	8·63	4·41	0·69	**48·33**
	1879	...	1·78	0·25	1·23	0·21	4·19	6·19	5·34	3·39	2·86	5·64	2·40	...	**33·48**
	1880	...	0·23	0·99	...	1·27	3·12	0·41	3·47	8·42	8·32	8·80	8·48	2·22	**45·73**
	1881	...	...	...	0·20	...	2·48	1·72	0·89	11·83	8·82	4·33	5·35	0·59	**36·21**
	1882	...	1·80	...	...	1·20	4·62	0·35	1·62	6·86	9·73	7·06	19·03	...	**52·27**
	1883	...	...	...	...	0·60	1·74	2·74	2·79	6·41	6·73	12·32	6·01	3·61	**42·95**
	1884	...	...	...	...	0·94	0·30	1·69	4·94	6·14	3·54	11·90	5·96	8·71	**44·12**
	1885	...	...	...	0·58	...	2·00	5·06	2·12	0·60	3·15	4·54	7·35	6·29	**31·69**
	1886	...	...	...	0·90	...	4·93	1·30	4·20	5·05	6·60	4·10	3·11	0·30	**30·49**
	1887	...	...	...	...	...	1·80	4·55	0·05	1·99	3·53	9·35	7·56	4·89	**33·72**
	1888	...	...	...	...	...	4·30	3·70	...	4·35	7·95	14·00	4·02	0·48	**38·80**
	1889	...	...	...	0·30	2·50	1·65	2·55	2·90	4·98	8·40	5·86	0·90	3·83	**33·87**
	AVERAGE—1870–89.		**0·35**	**0·25**	**0·42**	**0·52**	**3·69**	**2·79**	**2·98**	**5·54**	**7·25**	**8·00**	**5·28**	**2·09**	**39·16**
	1890	...	...	...	0·42	3·00	0·15	6·97	6·67	3·91	6·74	5·59	5·37	0·40	**39·22**
	1891	...	...	0·47	...	0·65	0·25	2·40	0·50	0·84	2·86	5·89	2·44	2·98	**19·28**
	1892	...	...	0·03	...	1·08	0·14	7·66	4·72	9·20	5·59	7·27	0·74	0·31	**36·74**

Number of Wet days—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Vellore.	1870 ...	5	...	...	...	2	8	11	9	7	11	7	2	62
	1871 ...	1	...	3	1	4	7	7	4	10	7	13	1	58
	1872 ...	...	...	...	...	3	6	7	12	9	8	13	6	64
	1873 ...	...	4	...	2	2	2	4	10	8	15	7	3	57
	1874 ...	...	...	...	...	8	5	11	10	18	8	5	3	68
	1875 ...	1	...	...	1	5	4	5	10	7	8	2	3	46
	1876 ...	...	...	...	...	8	6	6	4	5	1	2	...	32
	1877 ...	...		1	2	4	6	3	8	15	13	10	4	66
	1878 ..	...	...	...	2	3	5	13	15	10	8	5	2	63
	1879 ..	3	1	1	...	4	9	10	7	2	8	3	...	48
	1880 ..	...	1	...	3	7	...	5	7	5	11	15	6	60
	1881 ...	...	...	...	...	4	6	4	12	10	2	9	2	49
	1882 ..	2	...	...	2	6	2	1	9	6	6	13	1	48
	1883 ...	...	...	...	...	5	4	8	5	4	13	7	4	50
	1884 ...	1	...	...	...	1	2	2	7	3	10	11	9	46
	1885 ...	...	...	1	...	3	6	3	5	8	11	6	8	51
	1886 ...	...	...	...	...	4	9	7	7	9	8	5	4	53
	1887 ...	...	...	...	..	6	7	3	12	9	10	14	9	70
	1888 ..	...	...	...	...	4	3	5	8	7	10	7	4	48
	1889 ...	...	...	...	...	1	6	10	8	12	11	3	5	56
	AVERAGE—1870-89.	**1**	...	...	**1**	**4**	**5**	**6**	**9**	**8**	**9**	**8**	**4**	55
	1890 ..	1	...	...	2	10	8	6	8	7	11	9	2	64
	1891 ...	1	3	...	2	1	5	3	4	10	12	5	9	55
	1892 ..	..	1	...	3	4	5	8	16	12	7	..	4	60
Chittoor	1870 ...	3	...	3	3	5	10	11	13	9	12	15	1	85
	1871 ...	2	...	1	2	5	1	8	2	9	7	10	...	47
	1872 ...	...	...	...	...	7	4	6	14	10	8	11	4	64
	1873 ..	...	3	...	...	2	3	3	5	5	17	1	5	44
	1874 ...	...	...	...	...	6	10	7	4	14	15	16	2	74
	1875 ...	...	...	...	1	5	6	4	12	4	6	3	4	45
	1876 ...	...	...	...	...	2	7	4	5	5	3	...	...	26
	1877 ...	...	...	3	1	5	7	3	4	5	15	11	2	56
	1878 ...	...	...	...	1	5	5	10	13	14	9	8	2	67
	1879 ...	1	1	3	1	5	10	11	10	4	9	5	...	60
	1880 ...	1	1	...	1	6	2	6	6	8	7	13	6	57
	1881 ...	...	...	1	...	6	5	4	14	10	5	7	2	54
	1882 ...	4	...	...	1	5	1	4	11	7	8	12	...	53
	1883 ...	...	...	...	3	3	7	5	10	3	14	8	6	59
	1884 ...	...	...	...	1	1	2	3	5	5	10	9	8	44
	1885 ...	...	...	1	...	1	8	5	3	6	5	5	6	40
	1886 ...	...	...	1	...	7	4	6	10	9	11	7	2	57
	1887 ...	...	...	...	...	3	10	...	8	7	8	15	6	57
	1888 ...	...	...	...	...	5	3	...	5	6	6	11	1	37
	1889 ...	...	...	1	1	3	6	4	10	8	10	1	4	48
	AVERAGE—1870-89.	**1**	...	**1**	**1**	**4**	**6**	**5**	**8**	**8**	**9**	**8**	**3**	54
	1890 ...	...	...	1	2	1	6	6	6	7	10	5	1	45
	1891 ...	...	4	...	1	1	9	3	2	5	7	4	5	41
	1892 ...	...	...	...	2	...	11	6	13	9	9	1	2	53

CHAP. IV.
RAINFALL.

Statement of Rainfall at different stations in inches—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Wálájápet.	1870 ...	...	...	...	...	...	1·82	2·26	5·24	5·14	7·78	1·94	0·52	**24·70**
	1871 ...	...	0·70	6·55	...	5·23	1·40	3·08	2·65	7·65	4·79	13·11	0·65	**45·81**
	1872 ...	...	...	...	...	12·26	2·69	4·73	6·17	2·65	7·67	14·40	3·36	**53·93**
	1873 ...	...	7·65	...	2·51	0·05	1·20	4·36	6·84	8·48	8·29	2·54	1·00	**42·92**
	1874 ...	...	...	...	...	5·37	6·47	7·55	4·28	20·09	9·55	2·25	0·75	**56·31**
	1875 ...	...	...	...	...	1·92	0·26	2·50	11·74	2·57	2·79	1·50	0·85	**24·13**
	1876 ...	...	...	...	0·36	4·67	3·29	3·86	3·29	6·28	0·50	2·12	...	**24·37**
	1877 ...	...	...	...	...	4·71	1·35	2·03	5·98	7·45	8·05	4·84	0·36	**34·77**
	1878 ...	0·05	...	...	1·95	3·03	6·89	4·22	15·38	4·97	6·35	1·68	0·94	**45·46**
	1879 ...	0·90	...	2·28	0·20	3·86	7·86	6·69	3·64	1·78	13·21	2·52	...	**42·94**
	1880 ...	...	...	...	1·60	0·95	2·10	3·95	3·15	1·70	7·32	13·40	1·60	**35·77**
	1881 ...	...	...	...	...	0·70	7·57	2·35	12·50	11·00	1·00	11·40	1·40	**47·92**
	1882 ...	2·05	...	...	1·95	1·90	1·45	0·70	7·95	2·25	6·35	21·50	0·40	**46·50**
	1883 ...	...	...	...	...	0·80	6·90	4·64	4·60	1·50	7·35	8·45	5·40	**39·64**
	1884 ...	...	...	...	...	0·22	1·30	1·45	3·30	4·60	12·40	8·90	16·05	**48·22**
	1885 ...	...	...	0·60	...	1·70	3·60	2·92	1·25	5·00	3·87	10·10	6·25	**35·29**
	1886 ...	...	...	...	...	4·60	7·05	5·55	5·95	4·90	4·90	3·15	0·80	**36·90**
	1887 ...	...	...	...	...	0·70	5·90	1·50	8·70	8·10	11·97	8·45	7·30	**52·62**
	1888 ...	...	...	...	...	4·70	1·00	2·15	4·60	4·65	2·93	7·80	2·85	**30·68**
	1889 ...	...	...	0·65	...	1·35	3·40	3·75	4·84	12·12	6·10	1·95	6·85	**41·01**
	AVERAGE—1870-89.	**0·15**	**0·42**	**0·50**	**0·43**	**2·94**	**3·67**	**3·51**	**6·10**	**6·14**	**6·66**	**7·10**	**2·87**	**40·49**
	1890 ...	...	...	...	...	1·30	8·05	4·65	5·19	7·20	9·05	6·50	...	**41·94**
	1891 ...	1·11	0·95	...	...	0·22	1·82	1·22	4·44	4·40	7·65	2·45	3·55	**27·81**
	1892 ...	...	...	...	...	...	8·36	4·10	11·17	7·80	5·79	0·60	1·99	**39·81**
Arcot.	1870 ...	1·35	...	0·40	...	0·19	3·85	3·20	1·72	6·42	6·75	2·25	...	**26·13**
	1871 ...	...	1·80	5·65	1·85	9·10	1·25	2·75	3·80	9·70	4·85	14·10	0·90	**55·75**
	1872 ...	...	...	...	0·65	11·30	1·40	3·85	6·15	3·40	6·15	12·50	2·69	**48·09**
	1873 ...	...	11·60	...	1·40	0·30	2·28	4·50	6·60	3·55	7·35	1·60	1·02	**40·20**
	1874 ...	...	...	...	...	8·56	0·45	7·72	0·32	13·55	9·25	1·40	1·57	**42·82**
	1875 ...	2·00	...	...	...	1·20	0·35	3·60	11·66	3·90	3·02	1·14	0·45	**27·32**
	1876 ...	...	...	...	0·35	5·33	1·89	3·65	2·92	7·54	0·46	2·93	...	**25·07**
	1877 ...	...	...	0·10	0·05	3·90	2·59	2·95	7·62	9·48	5·82	5·07	1·31	**38·80**
	1878 ...	...	...	...	1·25	1·10	5·70	4·35	15·25	4·98	6·35	3·50	1·10	**43·58**
	1879 ...	0·40	...	2·85	...	5·70	8·39	5·80	2·82	2·16	12·69	1·83	...	**42·64**
	1880 ...	...	0·31	...	1·70	1·55	1·48	3·51	4·90	3·35	6·67	13·80	1·80	**39·07**
	1881 ...	...	...	...	...	0·75	6·65	2·05	18·30	15·97	1·35	9·04	1·40	**55·51**
	1882 ...	2·10	...	...	3·25	2·32	1·09	0·71	5·12	3·52	3·80	20·20	0·25	**42·36**
	1883 ...	...	...	...	0·15	1·60	6·15	4·30	6·80	2·32	8·70	9·26	5·51	**44·79**
	1884 ...	0·16	...	...	...	0·87	1·45	1·91	4·12	5·83	14·46	9·10	14·95	**52·85**
	1885 ...	...	...	0·45	...	1·14	3·66	3·30	1·60	4·94	5·59	9·64	7·33	**37·65**
	1886 ...	0·10	...	...	...	4·01	7·92	5·98	10·32	4·97	8·52	2·60	0·94	**45·36**
	1887 ...	...	...	...	...	1·05	3·26	2·10	5·80	10·20	11·09	12·85	8·86	**55·21**
	1888 ...	...	...	...	...	5·55	0·72	3·63	6·62	4·71	2·54	8·36	2·66	**34·79**
	1889 ...	0·45	...	0·55	0·39	2·75	4·51	4·88	4·65	9·99	5·55	1·15	6·58	**41·85**
	AVERAGE—1870-89.	**0·32**	**0·69**	**0·50**	**0·55**	**3·41**	**3·25**	**3·74**	**6·35**	**6·52**	**6·55**	**7·12**	**2·97**	**41·97**
	1890 ...	...	...	...	...	0·64	7·72	4·70	5·54	7·67	9·02	1·93	0·25	**37·47**
	1891 ...	0·78	0·97	...	...	0·05	3·55	0·96	6·01	6·25	9·59	2·41	3·19	**33·76**
	1892 ...	...	...	...	...	0·30	6·71	5·04	11·42	7·00	3·91	...	2·23	**36·61**

Number of Wet days—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Wálájápet.	1870	...	...	...	...	...	6	6	4	5	9	9	2	**41**
	1871	...	1	2	...	5	2	7	6	8	6	12	2	**51**
	1872	...	...	...	...	2	5	8	8	5	9	11	6	**54**
	1873	...	3	...	3	...	3	4	7	8	9	2	2	**41**
	1874	...	...	...	...	2	7	9	5	12	5	6	2	**48**
	1875	...	...	...	...	4	1	5	14	3	4	5	3	**39**
	1876	...	...	...	1	6	5	6	5	4	3	5	...	**35**
	1877	...	...	...	...	6	4	6	8	13	14	6	2	**59**
	1878	...	...	...	3	5	5	8	15	9	7	3	4	**59**
	1879	2	...	2	1	3	8	10	10	5	15	4	...	**60**
	1880	...	...	...	2	3	6	6	3	5	7	12	3	**47**
	1881	...	...	...	...	3	6	3	13	10	3	9	2	**49**
	1882	2	...	...	3	1	2	2	6	4	6	10	1	**37**
	1883	...	...	...	...	3	5	6	6	3	8	7	3	**41**
	1884	...	...	...	...	1	1	3	6	7	10	10	7	**45**
	1885	...	...	1	...	2	4	5	4	5	8	7	4	**40**
	1886	...	...	...	...	3	7	6	5	7	3	4	2	**37**
	1887	...	...	...	...	1	7	1	13	7	10	12	6	**57**
	1888	...	...	...	...	3	2	4	7	7	6	5	2	**36**
	1889	...	...	1	...	2	5	5	9	9	8	3	4	**46**
	AVERAGE—1870-89.	...	...	...	**1**	**3**	**5**	**5**	**8**	**7**	**7**	**7**	**3**	**46**
	1890	...	...	...	...	3	8	5	9	6	10	5	...	**46**
	1891	1	2	...	...	2	5	3	2	7	6	3	5	**36**
	1892	...	...	...	..	...	7	3	13	10	5	1	3	**42**
Arcot ...	1870	3	...	1	...	2	6	8	5	8	8	5	...	**46**
	1871	...	2	2	2	4	2	6	6	10	8	11	2	**55**
	1872	...	...	...	1	2	2	5	11	5	8	9	7	**50**
	1873	...	4	...	2	1	6	3	7	6	13	2	4	**48**
	1874	...	...	...	...	3	1	9	2	10	6	2	3	**36**
	1875	1	...	...	...	4	2	4	11	5	5	4	1	**37**
	1876	...	...	...	2	6	5	7	4	11	1	5	...	**41**
	1877	...	...	1	..	5	8	5	9	15	12	6	3	**64**
	1878	...	...	...	1	3	6	8	15	9	10	5	3	**60**
	1879	2	...	2	...	4	7	8	9	5	13	4	...	**54**
	1880	...	1	...	2	4	4	7	5	6	9	11	3	**52**
	1881	...	...	...	...	1	5	3	13	8	1	8	2	**41**
	1882	2	...	...	2	3	2	3	10	6	5	13	1	**47**
	1883	...	...	...	1	3	8	8	9	5	13	9	4	**60**
	1884	1	...	...	...	1	1	5	6	8	13	11	9	**55**
	1885	...	...	1	...	2	7	4	7	3	9	8	5	**46**
	1886	1	...	...	...	4	8	8	13	12	9	4	3	**62**
	1887	...	...	...	...	1	6	3	11	11	12	15	7	**66**
	1888	...	...	...	...	6	2	6	11	6	8	9	4	**52**
	1889	1	...	1	2	3	7	6	10	11	8	2	4	**55**
	AVERAGE—1870-89.	**1**	...	...	**1**	**3**	**5**	**6**	**9**	**8**	**8**	**7**	**3**	**51**
	1890	...	...	...	...	2	8	8	9	5	14	8	1	**55**
	1891	1	2	...	...	...	7	4	5	10	8	5	6	**48**
	1892	...	...	...	...	2	6	6	14	10	6	...	3	**47**

Statement of Rainfall at different stations in inches--cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Arni.	1877 ...	...	...	...	...	4·29	3·29	1·05	1·98	6·15	9·06	3·18	2·40	**31·40**
	1878 ...	...	...	0·65	1·45	0·90	5·45	3·72	13·13	4·75	2·15	3·58	0·60	**36·38**
	1879 ...	1·45	...	0·65	...	2·10	7·45	3·70	3·40	2·75	5·00	2·20	...	**28·70**
	1880 ...	0·40	...	...	1·30	3·10	0·57	3·00	4·50	6·12	12·03	11·70	0·75	**43·47**
	1881 ...	...	...	...	.	1·66	2·19	2·00	8·85	11·25	0·65	4·50	1·30	**32·40**
	1882 ...	0·40	...	...	0·80	2·15	0·70	2·25	7·00	2·75	3·30	13·95	...	**33·30**
	1883 ...	...	...	...	0·30	1·68	7·75	4·60	9·07	3·99	9·58	6·80	4·74	**48·51**
	1884 ...	0·24	...	...	...	0·55	2·20	1·20	5·15	4·05	15·40	17·07	12·31	**58·17**
	1885 ...	...	...	0·25	...	1·60	2·60	2·05	4·05	7·20	5·70	6·65	6·60	**36·70**
	1886 ...	...	...	1·15	...	4·00	6·75	5·65	2·65	4·65	6·40	3·40	0·40	**35·05**
	1887 ...	...	...	0·30	...	1·60	5·85	1·40	9·35	1·40	16·95	9·10	5·90	**51·85**
	1888 ...	...	...	...	...	7·15	1·10	1·10	5·70	7·50	3·45	8·30	3·90	**38·20**
	1889 ...	3·20	...	...	...	...	3·80	7·30	6·45	15·60	11·00	1·30	4·70	**53·35**
	AVERAGE—1877–89.	**0·44**	...	**0·23**	**0·30**	**2·37**	**3·82**	**3·00**	**6·25**	**6·01**	**7·74**	**7·06**	**3·35**	**40·57**
	1890 ...	...	...	...	0·45	0·30	4·70	4·30	2·60	2·60	8·10	1·50	1·70	**26·25**
	1891 ...	1·50	1·00	...	0·50	...	1·70	0·60	5·45	3·60	12·30	3·45	3·40	**33·50**
	1892 ...	...	...	...	0·50	2·25	1·55	6·84	12·39	8·50	0·65	1·30	1·10	**35·08**
Pólúr.	1870 ...	0·20	...	...	...	0·06	5·04	1·22	6·22	4·05	14·33	2·30	1·05	**34·47**
	1871 ...	2·97	0·65	1·00	...	3·11	1·62	0·62	2·35	9·47	3·70	15·80	0·77	**42·06**
	1872 ...	...	...	...	...	5·20	1·12	8·82	6·00	2·40	8·00	13·20	3·40	**48·14**
	1873 ...	...	3·95	...	0·47	0·50	0·80	0·65	3·10	6·67	11·62	2·60	2·20	**32·56**
	1874 ...	...	...	...	...	10·65	4·00	3·15	5·75	14·27	10·72	2·40	1·90	**52·84**
	1875 ...	0·25	...	...	0·15	0·70	1·85	3·60	10·04	4·10	5·75	2·15	...	**28·59**
	1876 ...	...	...	...	0·60	1·35	4·89	2·65	1·96	5·91	3·29	3·92	...	**24·57**
	1877 ...	...	...	0·45	...	4·91	2·13	1·00	1·49	19·86	11·62	4·64	0·82	**46·92**
	1878 ...	...	...	...	0·52	1·67	1·69	3·33	12·64	3·68	3·74	8·58	1·82	**37·67**
	1879 ...	0·70	...	1·86	...	1·15	1·80	4·85	3·33	6·07	6·30	0·95	...	**27·01**
	1880 ...	0·26	...	...	1·63	6·55	...	2·37	5·16	2·65	9·98	10·29	1·85	**40·74**
	1881 ...	...	...	0·25	...	0·41	2·75	1·15	13·76	5·88	2·00	3·90	0·50	**30·60**
	1882 ...	2·15	...	...	0·90	4·97	0·73	0·75	9·05	6·81	...	12·48	...	**37·84**
	1883 ...	...	...	...	...	2·68	6·23	1·64	7·09	3·30	9·19	6·65	4·28	**41·06**
	1884 ...	...	...	...	...	0·45	1·00	0·51	6·30	5·35	14·42	12·05	15·27	**55·35**
	1885 ...	...	...	0·40	...	...	0·75	1·62	3·33	11·05	8·45	5·70	6·60	**37·90**
	1886 ...	0·20	...	0·70	...	4·07	4·79	6·45	5·04	3·96	3·04	2·80	0·43	**31·48**
	1887 ...	...	...	...	...	1·60	4·70	0·40	4·60	2·40	12·55	8·85	6·80	**41·90**
	1888 ...	0·15	...	...	0·06	6·81	0·55	1·13	6·94	9·73	6·63	8·37	2·45	**42·82**
	1889 ...	0·20	...	...	2·82	0·51	3·03	3·89	7·68	6·42	12·00	2·00	4·25	**42·80**
	AVERAGE—1870–89.	**0·35**	**0·23**	**0·23**	**0·36**	**2·87**	**2·47**	**2·49**	**6·09**	**6·70**	**7·87**	**6·48**	**2·72**	**38·86**
	1890 ...	...	...	...	0·20	0·25	4·85	2·85	2·10	3·80	7·60	4·15	0·55	**26·35**
	1891 ...	1·50	2·75	0·40	...	0·90	4·45	0·57	2·20	2·72	12·50	2·86	2·27	**33·12**
	1892 ...	...	0·85	...	0·38	2·10	3·24	7·95	8·55	11·24	3·97	0·42	1·15	**39·85**

Number of Wet days—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Arni ...	1877	...	...	...	...	7	6	2	4	13	13	7	5	**57**
	1878	...	...	1	3	1	4	7	13	6	7	5	2	**49**
	1879	1	...	2	...	2	15	5	8	6	11	4	...	**54**
	1880	2	...	...	2	6	2	7	9	8	9	16	3	**64**
	1881	...	...	...	...	3	4	3	14	12	3	7	3	**49**
	1882	2	...	..	1	5	3	5	12	5	6	12	...	**51**
	1883	..	...	...	1	3	6	7	9	3	13	8	4	**54**
	1884	1	...	...	...	4	3	3	11	6	9	13	7	**57**
	1885	...	...	1	...	4	5	2	8	8	12	5	7	**52**
	1886	...	...	1	...	3	12	8	6	9	9	6	1	**55**
	1887	...	...	1	...	3	7	3	9	2	8	6	5	**44**
	1888	..	...	...	...	6	2	2	6	4	5	4	3	**32**
	1889	1	...	...	...	...	5	7	9	9	8	2	5	**46**
	AVERAGE— 1877–89.	...	...	...	**1**	**4**	**6**	**5**	**9**	**7**	**9**	**7**	**3**	**51**
	1890	...	...	...	2	1	4	4	4	2	7	3	2	**29**
	1891	2	2	...	1	...	2	1	5	6	10	6	5	**40**
	1892	...	...	...	1	5	4	6	15	7	2	1	3	**44**
Pólár ...	1870	1	...	...	...	1	7	4	9	6	12	4	2	**46**
	1871	2	1	1	...	5	2	3	5	9	9	11	2	**50**
	1872	...	...	...	...	2	3	6	11	5	7	14	6	**54**
	1873	...	3	...	2	1	2	1	7	9	16	5	4	**50**
	1874	...	...	...	...	7	6	8	4	14	11	3	3	**56**
	1875	1	...	..	1	2	3	4	11	5	6	3	...	**36**
	1876	...	...	...	1	3	5	6	5	6	1	4	...	**31**
	1877	...	...	1	...	7	7	3	4	16	11	6	3	**58**
	1878	...	...	...	1	6	4	6	17	11	6	6	4	**61**
	1879	2	...	3	...	3	4	10	5	6	6	3	...	**42**
	1880	1	...	...	3	8	...	3	6	6	10	11	3	**51**
	1881	...	...	1	...	2	6	2	10	8	1	6	2	**38**
	1882	4	...	...	2	6	2	3	11	9	...	12	...	**49**
	1883	...	...	...	...	6	7	6	7	5	12	10	2	**55**
	1884	...	...	...	...	1	3	1	10	7	12	12	4	**50**
	1885	...	...	1	...	...	2	4	5	9	9	6	8	**44**
	1886	1	...	2	...	3	6	6	9	6	8	6	2	**49**
	1887	...	...	...	...	2	4	1	7	5	10	9	7	**45**
	1888	1	..	...	...	5	1	3	10	9	10	9	4	**52**
	1889	1	...	...	2	2	6	5	8	10	12	5	5	**56**
	AVERAGE— 1870–89	**1**	...	**1**	**1**	**4**	**4**	**4**	**8**	**8**	**8**	**7**	**3**	**49**
	1890	...	...	..	2	1	3	7	5	6	11	8	2	**45**
	1891	2	5	1	...	1	5	2	4	6	14	6	4	**50**
	1892	...	2	...	1	4	7	7	12	11	4	1	2	**51**

CHAP. IV.
RAINFALL.

Statement of Rainfall at different stations in inches—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Wandiwash.	1870 ...	1·05	...	...	...	0·35	3·87	3·70	5·75	1·95	10·00	4·60	1·30	**32·57**
	1871 ...	1·80	...	1·90	...	1·50	2·20	0·20	2·25	9·47	3·82	15·00	1·15	**39·29**
	1872 ...	...	...	...	...	9·80	0·20	4·55	4·80	1·60	8·20	28·45	5·60	**63·20**
	1873 ...	...	8·10	...	1·60	1·00	2·20	1·90	2·60	6·30	8·21	5·10	0·15	**37·16**
	1874 ...	...	...	0·10	...	15·40	8·60	5·75	2·85	22·50	12·55	4·30	2·20	**74·25**
	1875 ...	...	...	...	0·50	4·35	0·45	1·30	12·45	2·40	1·70	2·20	1·50	**26·85**
	1876 ...	...	...	...	...	2·00	4·10	6·95	5·20	2·90	...	1·20	...	**22·35**
	1877 ...	...	...	...	0·90	5·90	2·20	0·70	2·15	11·45	8·60	1·95	2·40	**36·25**
	1878 ...	...	...	...	0·50	0·25	1·35	1·90	10·30	4·50	2·70	2·70	3·70	**27·90**
	1879 ...	...	...	1·60	...	0·50	6·20	6·30	3·30	1·90	5·90	1·40	1·50	**28·60**
	1880 ...	0·60	...	...	0·60	2·30	3·30	2·00	6·20	5·60	13·20	17·95	3·10	**54·85**
	1881 ...	...	...	0·20	...	0·20	6·90	1·60	6·90	8·40	3·40	7·85	1·78	**37·23**
	1882 ...	0·85	...	...	0·90	1·60	1·25	0·83	5·99	5·97	3·15	19·52	0·20	**40·26**
	1883 ...	...	...	...	0·20	0·80	3·30	1·55	5·82	3·05	10·86	7·82	6·59	**39·99**
	1884 ...	0·17	...	...	...	...	3·56	3·41	12·20	5·02	15·31	24·28	20·07	**84·02**
	1885 ...	...	...	0·30	...	2·98	1·61	2·47	4·07	5·83	6·00	11·55	3·53	**38·34**
	1886 ...	...	...	1·45	...	5·50	9·44	8·60	7·85	3·97	8·08	6·51	2·25	**53·65**
	1887 ...	...	...	0·90	...	3·77	10·80	1·35	9·44	5·78	17·51	18·50	6·35	**74·40**
	1888 ...	0·10	...	...	0·20	10·32	3·70	1·43	9·55	7·40	11·05	12·38	4·85	**60·98**
	1889 ...	0·90	...	...	0·60	...	6·35	10·81	4·07	3·65	9·95	1·30	7·84	**45·47**
	AVERAGE—1870–89.	**0·27**	**0·40**	**0·32**	**0·30**	**3·43**	**4·08**	**3·37**	**6·19**	**5·98**	**8·01**	**9·73**	**3·80**	**45·88**
	1890 ...	0·25	...	...	1·40	0·50	4·67	7·40	5·87	1·93	4·79	2·68	0·61	**30·10**
	1891 ...	1·75	1·44	1·27	0·40	0·31	3·39	0·77	1·38	5·37	13·08	3·80	10·24	**43·20**
	1892 ...	...	...	...	0·09	0·59	4·07	16·43	14·77	13·37	9·00	0·28	1·67	**60·27**

Number of Wet days—cont.

Recording stations.	Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Wandi-wash.	1870 ...	4	...	...	...	1	8	7	6	5	9	9	2	51
	1871 ...	1	...	1	...	3	4	...	5	9	8	11	1	43
	1872 ...	...	...	...	...	2	1	6	9	4	7	14	7	50
	1873 ...	...	4	...	2	1	5	2	6	8	13	10	1	52
	1874 ...	...	...	1	...	6	6	6	3	12	9	6	5	54
	1875 ...	...	...	...	1	5	2	2	13	4	3	5	3	38
	1876 ...	...	...	...	...	4	6	9	8	2	...	1	...	30
	1877 ...	...	...	...	1	5	2	2	7	13	12	5	5	52
	1878 ...	...	...	...	2	1	3	7	11	8	3	4	3	42
	1879 ...	...	...	2	...	2	7	8	5	4	9	2	1	40
	1880 ...	1	...	...	1	3	6	5	5	4	8	18	6	57
	1881 ...	...	...	1	...	1	4	1	8	12	4	11	5	47
	1882 ...	4	...	...	4	4	3	2	9	7	4	14	1	52
	1883 ...	...	...	...	1	3	6	4	9	4	12	9	4	52
	1884 ...	1	...	...	...	...	4	8	9	7	13	15	5	62
	1885 ...	...	...	1	...	2	3	2	11	9	9	10	6	53
	1886 ...	...	...	2	...	5	7	5	8	6	13	9	3	58
	1887 ...	...	...	1	...	2	4	3	11	7	10	13	6	57
	1888 ...	1	...	...	1	5	4	5	10	3	7	9	4	48
	1889 ...	1	...	...	1	...	8	6	6	7	8	2	4	43
	AVERAGE—1870-89.	**1**	...	...	**1**	**3**	**5**	**4**	**8**	**7**	**8**	**9**	**3**	**49**
	1890 ...	1	...	...	1	3	8	9	7	7	9	7	3	55
	1891 ...	2	4	1	1	1	6	4	3	8	10	7	10	57
	1892 ...	...	...	...	...	2	6	9	15	9	6	1	3	51

CHAP. IV.
SEASONS.

The foregoing detailed statistics of rainfall are in themselves sufficient to give a good idea of the nature of each year from an agricultural point of view. The following table, however, which has been compiled from the reports of Collectors, shows at a glance the character of each season as reported by the Collector :—

Fasli.	Nature of the season.
1221	Very bad.
1222	Indifferent.
1223	North-east monsoon scanty and tanks not supplied from large rivers were dry or received but a short supply.
1224	Rains not seasonable and season not particularly good. There was, however, an increase in the area under cultivation. Prices favourable to the cultivators.
1225	The south-west monsoon was rather late for the superior dry grains, but was extremely favourable to the inferior species. The north-east monsoon was exceptionally regular and abundant in most places.
1226	Rains scanty and the season unfavourable especially in the southern taluks. Prices favourable to the ryots.
1227	Favourable.
1228	*No information.*
1229	Early rains were very deficient. In May there was a storm, which did serious damage to cultivation, cattle and human beings and breached many tanks. Prices unfavourable to the ryots.
1230	Rains failed. Collector applied for Rs. 1,400 for conducting ceremony called 'Rudrábishékam.'
1231	Tolerably favourable, though early rains failed.
1232	Season on the whole favourable, though in some taluks the want of early rains for dry cultivation was considerably felt. Fever was prevalent and caused considerable mortality in places.
1233	Season very unfavourable. Seed grains were lost wherever cultivation had been begun and cattle died in great numbers for want of water and forage. The desertions in some parts of the district were very numerous.
1234	The rains were deficient and untimely ; this coupled with the excessive drought of the previous year caused almost a total failure of all irrigation sources. Large areas were consequently left uncultivated and the yield of the area cultivated was poor. Prices very high.
1235	Season on the whole much better than either of the two preceding and very favourable to dry cultivation ; but a considerable extent of wet lands remained waste. Prices higher than the commutation rates, though not so high as in Fasli 1234. A small portion of those who quitted the district during the famine returned to their homes during the year.
1236	Season was favourable. There was a failure of rains in August and September, in consequence of which there was a diminution of the area under dry crops and inferior paddy, but this was made up by increased cultivation of superior paddy. Prices were about 30 per cent. less than the dowle, but the difference was somewhat made up by increased produce.
1237	The early rains were unfavourable, and dry cultivation was retarded in consequence. There was a storm in May 1236, which was followed up by another in December, and between them a very large number of tanks were rendered temporarily useless. Cattle diseases, which were more or less prevalent during the two previous years, became very severe and carried off large numbers. Owing to these causes a very considerable extent of land was left uncultivated. Cholera and fever were also prevalent. Prices low.
1238	The early rains failed, and dry cultivation suffered in consequence. Prices low.

Fasli.	Nature of the season.
1239	The south-west monsoon was a failure, and the north-east did not begin till late in November. There was consequently a decrease in the extent of cultivation as compared with the previous fasli, and prices rose.
1240	The early rains were favourable for dry crops, but the north-east monsoon, though it began well, was not quite so favourable. Prices were advantageous to cultivators, and the public health was good.
1241	The season was very favourable, but ryots experienced considerable loss from the low prices of grains, which sold at rates lower than almost any that prevailed during the previous ten years.
1242	The season was one of unprecedented severity, and great distress prevailed. The monsoons were late and very deficient and almost all irrigation sources utterly failed; large areas were left waste and crops over considerable areas perished altogether. Remissions were granted on a large scale and relief was afforded to the distressed people by the distribution of rice gratis at selected centres and by employment on public works. The prices of grain rose rapidly and continuously during the fasli and had more than tripled by the end of the year. Cholera and fever were prevalent, and the effect of the season on the farming stock was most destructive.
1243	The first part of the season was unfavourable, and the growing crops were suffering from drought and were in danger of perishing. The heavy rains of August, September and October, however, saved them. The north-east monsoon almost entirely failed and threatened the destruction of wet crops, which subsequent showers saved from ruin. The prices of grains became lower during the rainy months.
1244	The season opened favourably; the rains which fell in the early part of the year were heavy and seasonable, and a much larger extent of dry lands was cultivated than in the preceding year; but the north-east monsoon was again a failure and wet crops suffered in consequence. Prices fell more than 50 per cent. in the early part of the year, but rose again in the latter part, though they did not reach the level of the previous year.
1245	Rains failed during the usual period of the wet cultivation. During October and November there were freshes in the Pálár, which filled the tanks dependent on it and wet cultivation was begun everywhere in anticipation of a favourable season; but there was no rain, and crops over large areas withered up and perished.
1246	Rains were scanty in the early months resulting in a large decrease in the extent of dry cultivation. There was also loss of second crop caused by want of supply in tanks and channels. A storm occurred in October, which breached several of the tanks at the time of the samba cultivation.
1247	The season was favourable, and there was an increase in wet and dry cultivation.
1248	The season was throughout the year unfavourable, especially so in the beginning (at the time of cultivation of the chief dry crops), and in November and December, the time of wet cultivation. Pulses and inferior paddy fared fairly well owing to some heavy rain in September.
1249	Season was the most favourable of any that prevailed since fasli 1232. Prices low.
1250	The season was, on the whole, not very favourable. The rain during May and June was scanty and failed entirely in July and August. The three following months were more favourable for dry cultivation. The effect of the season on wet cultivation was worse, the tanks having remained nearly dry from June to August. Prices low.
1251	As in the previous year the early rains were scanty and the late rains abundant. Prices declined further, and the average during the ryots' selling months was 36 per cent. below the commutation rate.

CHAP. IV.
SEASONS.

Fasli.	Nature of the season.
1252	There was again a failure of the early rains which coupled with a considerable loss of cattle from disease limited the extent of cultivation of the dry and of the early wet crops. Prices higher than in fasli 1251, but still much below the commutation price. Public health was bad, cholera having prevailed extensively throughout the district.
1253	Rainfall of the year, as a whole, above average, but deficient at the time of the ripening of the crops. Hence the outturn, especially that of the dry crops, below average. Prices nearly 40 per cent. below commutation rates.
1254	The season was not favourable. From May to September there was little or no rain; light and partial showers from September to February. A disease broke out among cattle and destroyed or disabled many of them. There was decrease in the extent of both wet and dry cultivation.
1255	Season very unfavourable. Occasional falls of rain in May and June and little or none afterwards. There was a large falling off in the extent of land cultivated; a large portion of the crops was entirely dried up and the rest yielded a poor outturn. Cholera prevailed in many places, and cattle died in considerable numbers. Prices rose and were slightly above the commutation rates.
1256	Season not unfavourable. There was a hurricane in November which injured the crops and breached many of the tanks. Public health was good and cattle free from disease. There was a further rise in prices which were about 25 per cent. over commutation rates.
1257	Season favourable. Outturn of crops fair. Public health good and cattle generally free from disease. Prices fell considerably and were slightly lower than the commutation rates.
1258	Season not so favourable as the preceding. South-west monsoon somewhat deficient and the north-east late and scanty. Cholera and fever prevailed largely and cattle died in large numbers from disease. Prices again fell and were 30 per cent. below commutation rates.
1259	Season unfavourable. South-west monsoon not much below average, but the north-east was a total failure. There was great scarcity of water for men and cattle. Cholera and cattle disease were prevalent but to a less extent than in the previous year. Prices rose a little, but were still considerably below commutation rates.
1260	Season far better than that of last fasli. There was an outbreak of influenza, and cholera also prevailed to a slight extent. A storm, which occurred in May, destroyed a large number of cattle. Prices rose slightly, but were still about 20 per cent. below commutation rates.
1261	Season the most favourable the district had had since fasli 1249. Cholera prevailed to a slight extent in certain parts, and cattle diseases were very widely prevalent; the losses amongst farm stock, especially of sheep and goats, were severely felt by the ryots. Prices fell and were 25 per cent. below commutation rates.
1262	Season as favourable as the preceding one; but heavy rains in March did considerable damage to crops. Cholera prevailed in the latter part and fever of a malignant type towards the close of the fasli, which caused great loss of life. Small-pox also prevailed, but to a slight extent. As in the previous fasli there was great loss among cattle (especially sheep and goats) owing to the prevalence of disease and heavy rains in March. Prices fell still further, and were about 40 per cent. less than the commutation rates.
1263	The season was very unfavourable. The early rains were very scanty, and there was a continued drought till January. Cultivation was greatly restricted and much of what was sown failed. Hail storms in March did considerable damage to crops. Cholera and fever prevailed in almost all parts of the district. There was not much disease among cattle, but numbers died from want of pasture and fodder. Prices rose very considerably during the fasli; the average

Fasli.	Nature of the season.
	price of paddy was the same as the commutation rate, while those of dry grains were 15 to 40 per cent. higher.
1264	Rain generally deficient. South-west monsoon very moderate; during north-east monsoon rain fell only in November and December. Cattle disease widely prevalent.
1265	Season more favourable than previous year, but crops failed partially from failure of rain in December.
1266	Both monsoons good. Cholera severe and cattle disease still bad.
1267	Season less favourable. South-west monsoon scanty and partial; north-east abundant. Many deaths from cattle disease. Reduced assessments introduced.
1268	Copious rain. Health of men and cattle good.
1269	Early showers seasonable and copious, but north-east monsoon was late and seriously affected agricultural operations. The failure of rain was most felt in the taluks of Chittoor, Chendragiri, Sátghur and Palmanér. Public health satisfactory.
1270	The season unfavourable throughout. The early rains were so partial and uncertain that a very large portion of the land ploughed was left unsown. The north-east monsoon also failed, and the dry crops were either lost or yielded much below the average, while the later crops fared even worse. Fever and cholera were largely prevalent and the loss of live stock from murrain was considerable. Prices rose very high.
1271	The south-west monsoon was partial though above the average, and the north-east monsoon was almost a total failure. The Pálár and Ponné rivers received small freshes only twice. Cholera prevailed. Prices rose higher and almost reached famine rates in June 1862.
1272	The season, though bad, was better than that of the previous year. The early rains, though poor, fell at the proper time, but the north-east monsoon was a failure. Health of men and cattle still unsatisfactory.
1273	Early rains very light and partial, and the north-east monsoon a total failure. Public health and condition of cattle not good.
1274	The early rains were light and very partial, but the north-east monsoon was seasonable and abundant. Cholera and cattle diseases still prevalent. Prices showed an upward tendency owing to exports by rail.
1275	The early rains light and partial, while the north-east monsoon set in very late and exhausted itself in two short but violent outbursts in the last week of November and first week of December causing much damage to irrigation works. General health fair. Prices ruled high.
1276	The south-west monsoon did not set in till the end of August, and by that time famine and general distress had assumed most alarming proportions. Some good rains fell later on but too late to do much good. Cholera, fever and small-pox appeared in all parts of the district, and over 16,000 people fell victims to these epidemics. The mortality among cattle was over 40,000. Prices of food grains reached their maximum between June and September, when the distress was most severe. They then declined though slowly, as the season declared itself.
1277	The season was almost disastrous. The south-west monsoon set in promisingly and extensive cultivation was commenced; but owing to the too early failure of these rains the crops were either totally lost or yielded but little. The north-east monsoon also failed. Over 30,400 cattle died. The prices, though higher than the average of the preceding ten years, were much cheaper than in fasli 1276.
1278	The season was even more disastrous than that of the previous year. The south-west monsoon indeed set in early, but there was no heavy continuous rain, and the north-east monsoon failed altogether. Public health was, however, good, and all the food-grains except paddy (first and second sorts) were cheaper than in the preceding year.
1279	The season was somewhat more favourable than in the two preceding years. The south-west monsoon set in early and the showery weather lasted longer than in the preceding year, but there was no heavy

CHAP. IV.
SEASONS.

Fasli.	Nature of the season.
	burst of the monsoon, and the north-east monsoon again failed. There was a further fall in the prices of food-grains, but public health was bad, cholera and fever being prevalent. The condition of the farm stock was also indifferent.
1280	Season was the most favourable known for many years past. The rainfall was abundant and equally distributed, but public health continued to be bad. Cholera and fever were prevalent to a large extent and cattle mortality was even greater than in the previous year. Prices again fell considerably.
1281	Season not favourable to agriculture. The north-east monsoon was a failure, though the south-west monsoon was fairly seasonable and evenly distributed. The health of the district was generally good. Cattle mortality was abnormally large on account of a cyclone in May, which devastated a great portion of the district.
1282	Season was unfavourable. Though there was a greater fall of rain than usual, it was mostly unseasonable and sudden and did more harm than good. Public health was not good. Though there was no cholera there were nearly 27,000 deaths from small-pox and fever against about 16,500 of the previous fasli.
1283	The season was unfavourable, being characterized by protracted drought. The early rains were insufficient, and there was an entire absence of rain from November to the first week of May. The position was, however, somewhat improved by the plentiful rains of May. The district was free from cholera, and fever was less prevalent than in the previous fasli, but there were more deaths from small-pox. The drought caused excessive mortality among horned cattle, and there was a considerable rise in the prices of all food-grains.
1284	The season was very favourable. The rains were abundant and seasonable, and there was a fine harvest. A large number of public works, however, were seriously injured by floods. There was considerably increased mortality from fever owing to the dampness of the season, but the district was free from cholera. There was a general fall in the prices of food-grains.
1285	The season was most disastrous. The south-west monsoon was insufficient and the north-east monsoon was an entire failure, and there was almost a water famine throughout the district. There was an outbreak of cholera which caused over 14,000 deaths ; but the district was comparatively free from small-pox, and there was a decrease in the mortality from fever. The prices of food-grains, especially of dry grains, rose considerably.
1286	The season was even more disastrous than in the previous year and famine set in. The early rains were very deficient, and the north-east monsoon was again a total failure. The largest tanks in the district lay empty throughout the year, springs in channels and wells failed completely and large tracts of land lay waste and uncultivated, and a very large proportion of the crops cultivated perished altogether. There was severe distress throughout the district and the condition of the agricultural classes was most miserable. Works were started for the relief of the distressed people, village camps established and village relief introduced. Cholera, which had entered the district in the previous fasli, greatly increased in virulence and caused over 38,000 deaths. There was also increased mortality under small-pox. The mortality among cattle was over 59,000 against 31,495 in the previous year, and this large increase was due to the terrible want of pasture and water during the major portion of the year. There was a further very considerable rise in the prices of food-grains amounting in some cases to over 90 per cent., accompanied by an increase in the price of almost every article of consumption, and the poorer classes suffered grievously.
1287	The drought of fasli 1286 extended over a portion of this fasli, and the season was in consequence extremely unfavourable in its earlier part,

Fasli.	Nature of the season.
	but there was a heavy outburst of rain in September and October, which materially brightened the prospects. The health of the district was far from satisfactory. There was indeed a considerable decline in the mortality from cholera, but this was more than counterbalanced by the increase under fever and small-pox. The mortality among cattle (57,041) was only slightly less than in the previous fasli. The prices of food-grains rose still further during the year owing to the continuance of the famine and the scanty harvest of previous years.
1288	Season showed a marked improvement, and the rainfall was heavy and general. Public health was good, cholera having altogether disappeared and fever and small pox declined considerably in virulence. Cattle suffered from disease during the earlier part of the year though not to such an extent as in the preceding year. The prices of food-grains fell considerably, but they were still much higher than those of fasli 1285, though they were in some cases only one-half of those of fasli 1287.
1289	The season was again unfavourable. Both the monsoons were deficient. The dry crops yielded a fair outturn, but the wet crops were diseased. There was further improvement in the public health; but cattle diseases were widely prevalent, the mortality exceeding 62,000. There was a further decline in the prices of all food-grains.
1290	The season was more favourable than that of the previous year, but the rainfall from April to July was poor, and the north-east monsoon was late in bursting, and the outturn of the dry crops was poor in consequence, varying from 2 to 10 annas. There was a further improvement in the public health, and the condition of the farm stock was better than last year. The prices of food-grains again fell generally, but were still ahead of those of fasli 1284.
1291	The season was again unfavourable in the early part of the year, and the north-east monsoon was also far from satisfactory. The outturn of dry crops was again poor. Cholera broke out in October, but there was a decided improvement in the condition of cattle. There was a further fall in the prices of food-grains due to a falling off in the exports from the district.
1292	The season was, on the whole, favourable. The south-west monsoon was far from satisfactory. Cultivation was consequently retarded and much of the crops under rain-fed tanks withered. Outturn of other crops average. Public health good. The condition of cattle was greatly satisfactory. There was a slight rise in the prices of food-grains as compared with the previous fasli.
1293	The season was favourable, but the public health was far from satisfactory. Cholera prevailed in an epidemic form in various parts of the district, and there was increased mortality, under small-pox and fever. The condition of cattle was generally satisfactory. There was a marked reduction in the prices of all food-grains as compared with the previous fasli.
1294	Season not favourable. The south-west monsoon was nearly a total failure, and though the north-east monsoon came in time, the fall of rain in December was exceptionally heavy and caused considerable damage to crops and cattle. The outturn of crops varied from 4 to 10 annas. Cholera prevailed all over the district in an epidemic form, and the mortality from fever was high. The health of cattle was, on the whole, fair. There was a rise in prices.
1295	The season was, on the whole, unsatisfactory, though not quite so much as in the previous fasli. The south-west monsoon, though seasonable, was scanty and insufficient; but the north-east monsoon was fair. Outturn below average. The health of the district was tolerable; cholera had almost disappeared, but deaths from fever were still high (14,873). The health of cattle was fair.
1296	The season was tolerably good. South-west rains were good, but north-east monsoon was scanty. Outturn below average. Public health

CHAP. IV.
SEASONS.

Fasli.	Nature of the season.
	was not so good as in the previous year. There was no cholera, but the mortality from fever and small-pox increased. The health of cattle was good and the prices of food-grains fell.
1297	The season was tolerably good. The north-east monsoon was copious south of the Pálár, but the south-west monsoon was indifferent. Outturn middling. Public health was very unsatisfactory owing to the prevalence of cholera and small-pox.
1298	The season was not, on the whole, favourable for the wet crops, owing to a deficiency of the north-east monsoon. The fall in the south-west monsoon was, however, general and fairly distributed. Prices rose on account of the bad season. Public health not satisfactory. Cholera, fever and small-pox were largely prevalent.
1299	South-west monsoon good, but the north-east monsoon very late and unsatisfactory. From the middle of October to the middle of December there was little or no rain, but all apprehensions were removed by copious falls in December. The lateness of the rains affected the outturn which was below the average. Prices of all the principal food-grains rose during the second-half of the year. Public health not satisfactory.
1300	The season was unfavourable generally throughout the district, and exceptionally so in Wandiwash and Pólúr and parts of Wálájápet and Arcot. The early monsoon was generally good, but the rains in the first three months of the north-east monsoon (October to December) were unusually scanty, and it was found necessary to arrange for starting relief works in Wandiwash and Pólúr taluks and in the Kálahasti zemindári. Fortunately, however, there was some unusual rain in January, followed up by some more in February and March, which materially improved prospects. Several irrigation works had, however, to be started to relieve the labouring classes in Wandiwash, and later on relief kitchens were opened. Similar relief was also granted in Kálahasti. The harvests yielded but a middling outturn and the prices of food-grains rose from 20 to 30 per cent. The condition of the people was far from satisfactory and the public health was not good. The cattle suffered during the year for want of pasture and fodder.
1301	The season was unfavourable. The early rains were considerably deficient and ryots were in consequence allowed to raise dry crops on wet lands on payment of dry assessment. In September and October there were some general falls of rain, which, though less than the average, gave some supply to tanks, but the November rains failed altogether. The consequence was that large extents of wet land were left uncultivated and crops on extensive areas either failed entirely or yielded only a trifle. The condition of the Punganúr zamindári was so serious that operations were commenced under the Famine Code for the relief of the distressed people. There was a further rise in the prices of food-grains, which ranged during the year from 60 to 95 per cent. over the normal and the condition of the labouring classes was far from satisfactory. Public health was not good. Cholera of a virulent type was prevalent to a larger extent than in the previous year; small-pox and fever also carried off large numbers. Cattle died in large numbers owing to want of fodder.
1302	The rainfall of 1892–93 was much better than that of the previous year but was less than the normal. The south-west monsoon rains were unusually copious and timely throughout the district, and in Punganúr the fall was so good that it wrought a material change in the condition of the tract, and relief operations came to a close in July. The north-east monsoon rains were considerably below the average and wet crops generally suffered in consequence. The outturn of harvests was middling. The condition of the people was generally satisfactory and the public health was good.

This gloomy record does indeed 'make a goblin of the sun,' but allowance must be made for the influence upon the views of the district officers of failures restricted to comparatively small local areas. Land-owners and farmers are proverbially loth to admit that a season is entirely satisfactory and the mind of the Revenue officer is apt to become tinged with the same sombre hue. A standard of absolute perfection is set up and it is no wonder that, judged by this, most seasons leave something to be desired.

Famines.

There have, however, been a number of very bad years since the beginning of the century. The first was in 1806, but there is very little information on record about it. In 1812 there was again a failure of the harvests, but no serious distress seems to have ensued. In 1823-24 there was a severe famine and during July 1824 the price of rice in North Arcot was 4½ seers per rupee. The remissions amounted to 12½ per cent. of the revenue. The next famine occurred in 1832-33. This is generally known as the Guntúr famine, as it was most acute in that district; but it was also extremely severe in North Arcot and in Nellore, Cuddapah, Salem and Madura. In August 1833 the price of rice at Vellore was seven seers per rupee—a rate which provoked a riot.

The loss of population caused by these two famines must have been considerable. In 1822 the population of the Government taluks of the district was 892,292, while at the census taken in 1838 it was only 523,248. It is true that these enumerations were probably very defective, but there is no reason to suppose that the former was more accurate than the latter; the presumption, indeed, is to the contrary conclusion. The decrease in the population, therefore, must be real, and though it is possible that some of it was due to migration to districts lying outside the area of the famine, the greater part of it must be ascribed to privation and epidemic diseases, especially cholera. Seven other districts suffered loss of population between 1822 and 1838, but none to such a heavy extent as North Arcot. The population of the remaining districts increased by nearly 25 per cent.

After 1833 there was no real famine until 1866. The south-west monsoon of that year was very late; prices rose rapidly and in September rice was selling at six seers for a rupee. It is, however, remarkable that, notwithstanding the high prices and the distress in the district, 10,000 tons of rice were exported by rail to Mysore and other places. During August, September and October about 8,000 persons were in receipt of gratuitous relief, and the number employed on famine works was 1,400 in August and 2,950 in October. For each of the next four months the number on these works is given as 5,000, but this appears to be merely an

CHAP. IV.
SEASONS.
Famines.

estimate. These numbers are not high and the distress was probably neither very wide-spread nor very acute. The harvest of the spring of 1866 had been a good one and there must have been a large reserve of grain in hand; for the heavy exports already alluded to would otherwise have been impossible. Prices rose in sympathy with the rise in districts in which there was real scarcity and those classes who had no stocks of grain suffered.

The famine of 1877 was far more serious. The trouble began as early as 1875, when the south-west rains were insufficient and the north-east monsoon was an entire failure. In 1876 the early monsoon was again deficient and the north-east brought practically no rain at all. The total rainfall in the year was 18·38 inches, or less than half the average; and the deficiency in parts of the district was even greater than this. Prices rose enormously, and in September the Collector opened two relief-houses in Chendragiri. The Board did not approve of this step, but matters continued to grow worse, and by January 1877 there were 22,109 persons employed on relief-works. The numbers in receipt of relief in each month will give a most graphic picture of the progress of the distress:

Month.	Number receiving gratuitous relief.	Number employed on works.	Total.	Price of rice.*
1877.				
January	...	22,109	**22,109**	7·4
February	500	20,205	**20,705**	8·0
March	1,619	20,219	**21,838**	8·2
April	4,242	36,790	**41,032**	8·7
May	12,866	46,030	**58,896**	8·0
June	24,124	52,720	**76,844**	7·4
July	51,378	53,401	**104,779**	6·3
August	99,271	62,573	**161,844**	6·5
September	133,671	70,485	**204,156**	5·8
October	140,731	64,863	**205,594**	8·0
November	78,557	35,407	**113,964**	8·4
December	39,063	35,484	**74,547**	8·9
1878.				
January	28,294	34,534	**62,828**	8·5
February	27,403	31,986	**59,389**	8·5
March	25,962	26,645	**52,607**	8·5
April	23,276	18,963	**42,239**	9·0
May	18,950	23,702	**42,652**	9·1
June	16,896	23,363	**40,259**	8·1
July	18,779	23,111	**41,890**	7·9
August	17,847	21,424	**39,271**	8·4
September	12,045	17,064	**29,109**	8·9
October	8,590	11,650	**20,240**	9·8
November	4,513	8,676	**13,189**	10·4
December	1,186	639	**1,825**	10·9

* Seers of 80 tolas per rupee.

The expenditure on famine works amounted to Rs. 30,31,453. The normal value of these works was only Rs. 20,388,666, so that nearly ten lakhs of the outlay was practically in aid of gratuitous relief. Apart from this the expenditure on gratuitous relief was Rs. 16,52,007.

CHAP. IV. SEASONS. Famines.

Notwithstanding this heavy expenditure the loss of life was enormous. The special famine census of Salem, taken in March 1878, a considerable time before the famine was over, showed that the population was then 20·7 per cent. less than in November 1871. The intensity and duration of the famine were much the same in North Arcot and Salem and the decrease of population was assumed to have been practically identical in both. According to Dr. Cornish's calculations the population of the district in March 1878 was 1,612,222. The census of February 1881, however, showed the number of inhabitants to be 1,822,873, so that if his estimate of the loss were correct there must have been an increase of 13 per cent. in three years, in one of which there was still the pressure of famine, while the diminished fertility noticed below must have been in operation during part at least of the next year also. It would probably be within the mark to assume a growth not exceeding 2 per cent. in these three years and this would give a population of 1,786,500 in March 1878. Now between 1871 and the commencement of the famine the population had presumably advanced in a natural way and in November 1876, five years after the census, it was probably not less than 5 per cent. higher than the number enumerated in 1871. The loss, therefore, up to March 1878 was about 330,000. This is the loss due to death and migration, chiefly the former, but it does not include the less painful results of the diminished fertility of the people consequent on the famine. Dr. Cornish has shown, both from the birth registers and from statistics of actual inspection and observation of women during the famine, that the reproductive functions are very greatly impaired by prolonged privation and insufficiency of food, but it is not possible to measure in figures the loss due to this cause.[1] This cessation of growth, however,—for it is not actual loss—should not be viewed as a matter for regret but should rather be treated as a fortunate provision of Nature in mitigation of her cruelty. The combined result of the actual loss caused by the famine and the check given to reproduction was, as measured by the censuses of 1871 and 1881, a decrease in the population of 9·80 per cent.

---

[1] Dr. Cornish's admirable paper on *The Influence of Famine on the Growth of Population* is published as an appendix to the official *Review of the Madras Famine of* 1876–78.

CHAP. IV. SEASONS. Famines.

in 9½ years, and not until about 1886 or 1887 did the inhabitants of the district number as many as in 1871.

The loss of cattle was enormous. The registered deaths numbered 59,105 in fasli 1286 and 57,041 in fasli 1287, and the actual loss must have been greater, for there was a terrible scarcity both of grass and water. The people were further impoverished by the loss of their little hoards of jewels or cash, which had to be sacrificed in order to provide food. Ancient uncurrent silver coins found their way into the treasuries in considerable numbers, a sure sign that the distress had reached the classes that are ordinarily in circumstances of moderate affluence; for it is these classes that hoard old coins and they would not bring them out until their stores of grain had been exhausted and their reserves of current coin expended.

The last famine we have to record is that of 1891–92. Fortunately this was confined to a comparatively small area and owing to the prompt measures adopted there was but little loss of life. The north-east monsoon of 1890 was deficient in most parts of the district and particularly so in Wandiwash and Pólúr and the Kálahasti zemindári. There was some rain in January and February which greatly improved the position in Pólúr, but in Wandiwash and Kálahasti it was found necessary to start works and to open kitchens for the relief of the poorest classes. The south-west monsoon opened with a good fall of rain, but this promise of a good season was not maintained and the amount received in July and August was trifling. The failure of this monsoon rendered the pressure much more acute and prices rose considerably. The position was unfavourable in the whole of the eastern portion of the district, but it was acute only in Kálahasti, Wandiwash and Pólúr. By September the number employed on famine relief works had risen to 10,000 and the number fed in kitchens was 4,304; but in October there was some good rain and all relief works and kitchens were closed either at the end of December or in the following month. The difficulties of the district, however, were not yet over, for the failure of both the south-west and north-east monsoons in the Punganúr zemindári had brought about a condition of famine there and relief operations were commenced at the beginning of February 1892. Fortunately the south-west monsoon, though somewhat late, was a good one and by the 15th July relief works were closed.

The daily average number of persons assisted in each month of the period of distress is shown by the following statement, in which those employed on works are distinguished from those fed gratuitously in kitchens.

CHAP. IV.
SEASONS.
Famines.

Months.	Average numbers on works and in kitchens during each month in 1891 and 1892.		
	On works.	In kitchens.	Total.
1891.			
February	155	...	155
March	1,736	26	1,762
April	3,312	760	4,072
May	6,367	1,102	7,469
June	7,208	1,355	8,563
July	6,571	1,794	8,365
August	8,499	2,994	11,493
September	10,248	4,374	14,622
October	10,408	3,339	13,747
November	5,287	2,197	7,484
December	2,856	1,455	4,311
1892.			
January	736	356	1,091
February	87	...	87
March	161	30	191
April	690	60	750
May	1,514	52	1,566
June	1,798	45	1,843
July	471	17	488
August	...	...	...

One feature of this famine of 1891–92 was the issue of loans by Government for the purpose of sinking wells, a method of relieving distress which at once supplies work and provides a safeguard against future failures; and this excellent result is secured at the minimum cost to the State. Up to September 1892 the number of accepted applications for loans was 4,904, the amount involved being Rs. 6,46,242.

CHAP. IV.
PRICES.

The annexed statistics of prices have been prepared in the office of the Board of Revenue. They show the course of prices since 1874–75 of rice, cholum, cumbu, ragi and paddy. The average price of these for the whole district is given for each month of each year, and the mean annual price is given for each recording station.

The following table gives the prices of the principal grains for periods prior to that with which the detailed statements begin; it is taken from the first edition of this *Manual*. The price of rice is not given, but it may be taken roughly as twice that of paddy :—

Statement showing prices in seers of 80 tolas per rupee.

Fasli year.	Paddy.	Cholum.	Cumbu.	Ragi.	Horse-gram.
1215	57·1	...	...	...	...
1255–1264	57·1	39·0	41·0	42·5	33·3
1265–1274	35·8	25·4	27·0	27·7	24·1
1275–1284	32·7	24·1	25·9	25·4	20·1

All prices have risen considerably, and the advantage of this to the ryot is shown by the following comparison between the average prices of the last five years and those at which the grain assessment of each field was commuted into money :—

Grain.	Commutation price.	Average of five years ending 1892–93.
	Seers per rupee.	
Paddy	50·5	22·4
Cumbu	41·7	20·7
Ragi	38·1	24·9

The only other grain in which land was valued is varagu, and the figures given in the annual settlement reports show that the price of this also has risen enormously.

Average Price of Food-grains, in the North Arcot District, in seers of 80 tolas per rupee.

Years.		July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Annual average.
						Rice, Second sort.								
1874–75	...	16·2	15·8	15·7	16·8	17·8	18·6	18·8	19·3	19·1	19·8	19·5	19·5	18·1
1875–76	...	18·5	17·9	17·7	17·7	16·4	15·0	15·0	14·6	14·5	14·3	14·5	13·6	15·8
1876–77	...	13·2	12·7	12·2	9·8	8·4	7·2	7·4	8·0	8·2	8·7	8·0	7·4	9·3
1877–78	...	6·3	6·5	5·8	8·0	8·4	8·9	8·5	8·5	8·5	9·0	9·1	8·1	8·0
1878–79	...	7·9	8·4	8·9	9·8	10·4	10·9	11·9	12·8	12·7	12·8	12·9	12·6	11·0
1879–80	...	12·5	12·9	13·0	13·5	14·3	14·8	15·3	15·8	15·5	15·2	15·3	14·3	14·4
1880–81	...	14·8	14·8	14·3	14·7	14·7	15·9	16·1	17·5	17·2	17·4	18·0	17·9	16·4
1881–82	...	17·4	16·8	17·4	17·7	18·0	18·2	18·3	18·6	18·5	18·8	18·7	18·3	18·2
1882–83	...	17·7	17·4	17·2	16·6	16·5	16·7	17·1	17·3	17·4	17·1	17·4	16·9	17·4
1883–84	...	16·5	16·6	16·6	16·5	17·1	18·4	19·8	17·0	17·1	17·0	17·2	17·3	17·4
1884–85	...	16·5	16·7	16·1	15·9	16·0	15·8	14·7	14·5	14·9	15·4	15·5	15·4	15·8
1885–86	...	15·1	14·9	14·6	14·8	14·9	14·7	14·6	15·5	15·6	17·9	15·2	15·2	15·0
1886–87	...	15·4	15·3	15·7	16·3	16·9	16·4	17·6	17·4	17·2	17·2	17·4	16·9	16·9
1887–88	...	16·4	16·8	16·7	16·7	16·7	16·7	18·0	18·0	18·0	17·3	17·2	16·8	17·1
1888–89	...	17·1	16·9	16·6	16·1	16·0	16·4	16·4	16·5	16·3	15·9	15·9	15·7	16·3
1889–90	...	15·1	15·0	14·7	14·6	14·0	12·7	13·3	13·7	13·4	13·2	12·9	12·9	14·0
Average for 10 years ending June 1890.		**16·2**	**16·1**	**16·0**	**16·0**	**16·1**	**16·2**	**16·6**	**16·6**	**16·5**	**16·5**	**16·5**	**16·3**	**16·5**
1890–91	...	12·5	12·3	12·2	12·1	12·0	11·4	11·4	11·6	11·7	11·7	11·6	11·4	11·9
1891–92	...	10·7	10·2	10·0	10·3	10·2	9·3	9·5	9·4	9·6	9·7	9·8	9·6	9·9
1892–93	...	9·8	10·2	10·5	10·7	11·0	10·3	10·8	11·2	11·2	11·3	11·4	11·5	10·8

Average Price of Food-grains, in the North Arcot District, in seers of 80 tolas per rupee.

Years.		July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Annual average.
						Cholum.								
1874–75	...	21·9	25·0	26·7	26·8	26·9	26·0	25·1	25·9	26·2	26·0	27·2	26·8	26·1
1875–76	...	25·4	26·1	26·3	27·0	23·5	22·9	22·6	21·1	21·3	21·6	23·0	20·5	24·0
1876–77	...	20·7	20·0	16·9	12·8	10·1	8·8	8·1	8·5	10·0	10·3	9·1	8·3	12·3
1877–78	...	7·4	6·6	6·7	8·3	9·3	9·5	11·0	10·1	10·2	10·4	10·7	9·6	9·0
1878–79	...	10·5	12·6	14·4	14·4	13·9	16·0	15·8	16·7	17·7	18·5	17·9	18·3	15·3
1879–80	...	18·6	21·3	20·1	20·1	19·[illegible]	19·9	21·1	20·9	22·5	22·2	22·3	22·8	21·0
1880–81	...	23·8	25·3	25·2	23·9	24·4	26·2	25·2	23·4	26·1	25·6	26·1	26·5	25·7
1881–82	...	34·4	30·4	31·7	31·3	31·0	32·8	31·7	31·9	32·2	33·1	32·4	31·5	31·5
1882–83	...	30·6	33·1	32·8	33·5	31·2	30·4	29·3	29·7	29·4	27·9	28·5	30·0	30·8
1883–84	...	29·6	34·0	35·9	35·1	35·1	35·1	34·7	33·6	32·3	31·0	30·3	29·1	32·9
1884–85	...	30·6	31·5	30·9	30·6	28·2	27·5	24·5	24·3	24·5	24·8	24·1	24·1	27·3
1885–86	...	25·4	27·7	24·8	25·3	26·2	25·5	23·9	22·7	23·2	24·1	23·7	24·9	24·6
1886–87	...	24·4	25·7	29·3	29·6	31·5	30·1	30·2	29·1	29·7	30·7	30·6	29·4	29·2
1887–88	...	30·5	29·1	29·2	29·4	29·1	28·9	30·3	26·2	29·2	29·9	29·7	28·6	29·5
1888–89	...	29·3	30·0	30·2	26·8	27·1	27·2	28·0	27·2	25·9	25·1	24·8	25·6	27·2
1889–90	...	24·8	25·0	27·3	30·3	28·9	24·1	26·0	28·0	27·5	25·3	26·8	26·3	26·7
Average for 10 years ending June 1890.		**28·3**	**29·2**	**29·7**	**29·6**	**29·3**	**28·8**	**28·4**	**27·6**	**28·0**	**27·9**	**27·7**	**27·6**	**28·5**
1890–91	...	24·8	26·3	26·4	26·3	26·4	25·4	22·2	20·9	20·4	20·8	21·7	20·1	22·9
1891–92	...	18·8	17·9	15·9	16·2	15·0	11·4	12·6	13·1	13·4	13·5	13·9	13·3	14·4
1892–93	...	13·7	15·1	16·9	18·5	19·4	17·1	16·0	15·8	15·9	15·8	16·0	16·6	16·4

CHAP. IV.
PRICES.

Average Price of Food-grains, in the North Arcot District, in seers of 80 tolas per rupee.

Years.		July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Annual average.
							Cumbu.							
1874–75	...	22·0	25·9	27·3	28·6	28·9	28·6	27·9	26·6	26·8	26·0	25·7	25·7	27·1
1875–76	...	24·2	23·9	24·6	25·6	23·9	22·5	21·2	20·6	19·9	18·6	19·2	18·5	22·3
1876–77	...	18·3	18·4	18·2	13·5	11·1	8·6	8·1	8·8	8·7	8·9	8·2	7·7	11·5
1877–78	...	6·6	7·1	7·1	9·5	10·4	10·5	11·0	10·3	9·8	10·3	9·7	9·0	9·2
1878–79	...	9·2	11·6	17·2	18·5	16·8	17·8	16·8	17·7	18·4	18·0	17·7	16·9	16·5
1879–80	...	17·2	21·0	22·1	21·8	24·3	21·9	22·9	21·9	21·9	21·2	21·4	21·7	21·3
1880–81	...	22·4	23·5	25·3	26·0	27·1	26·5	26·4	26·3	26·0	25·9	26·1	25·5	26·5
1881–82	...	25·6	25·5	28·8	30·6	31·1	31·2	30·1	30·1	30·2	29·8	29·8	26·4	30·3
1882–83	...	26·8	28·1	29·4	31·1	30·3	29·7	29·4	29·0	27·8	29·0	27·4	27·2	29·1
1883–84	...	27·5	30·4	32·1	32·0	31·9	32·7	32·1	31·2	30·5	29·7	29·8	28·2	31·9
1884–85	...	27·9	26·9	26·6	27·2	27·0	25·2	22·3	22·3	21·6	22·4	22·9	22·1	25·6
1885–86	...	22·1	23·6	25·1	24·9	26·9	24·2	27·0	24·0	22·4	22·8	22·7	23·1	24·8
1886–87	...	22·4	24·4	28·3	27·6	27·1	28·5	28·3	28·3	27·3	28·3	27·1	28·7	28·2
1887–88	...	26·8	27·6	29·2	29·7	30·6	30·3	29·6	25·0	27·5	26·9	27·7	26·9	29·7
1888–89	...	26·4	27·1	29·5	27·3	28·0	28·0	27·8	27·3	26·9	26·8	26·2	26·4	27·4
1889–90	...	24·9	25·3	26·6	28·4	27·0	22·7	23·7	24·0	24·1	23·1	23·2	23·2	25·7
Average for 10 years ending June 1890.		**25·2**	**26·1**	**28·0**	**28·4**	**28·6**	**27·8**	**27·6**	**26·6**	**26·3**	**26·4**	**26·2**	**25·7**	**27·8**
1890–91	...	22·0	21·9	23·8	23·3	22·2	21·2	20·3	19·2	19·1	19·8	18·8	18·3	21·2
1891–92	...	16·4	15·6	14·1	14·3	13·5	11·2	11·4	11·5	11·9	12·1	12·0	11·6	12·9
1892–93	...	11·9	13·4	16·3	17·9	19·1	16·5	16·2	16·[illegible]	16·4	16·2	16·2	16·7	16·2

Average Price of Food-grains, in the North Arcot District, in seers of 80 tolas per rupee.

Years.		July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Annual average.
							Ragi.							
1874–75	...	28·2	27·7	29·4	29·7	31·2	31·0	30·9	30·3	30·0	30·6	31·0	30·9	30·1
1875–76	...	29·4	27·6	28·6	29·0	25·5	23·3	22·5	22·4	22·0	21·9	23·1	21·3	24·9
1876–77	...	21·5	19·4	12·4	14·6	11·6	8·6	8·5	9·4	9·7	10·8	9·8	9·1	11·4
1877–78	...	7·4	6·9	6·9	9·9	10·0	9·9	10·6	10·2	9·9	11·8	12·7	10·3	8·8
1878–79	...	10·3	11·0	15·9	17·9	17·3	17·6	16·9	18·0	18·7	20·7	20·6	19·7	17·0
1879–80	...	19·8	20·7	23·5	22·6	24·0	24·0	24·3	24·2	24·3	25·7	26·4	26·0	23·6
1880–81	...	25·3	25·3	25·8	27·4	28·7	29·1	30·9	30·4	30·5	31·2	32·5	32·5	29·7
1881–82	...	30·6	30·7	31·4	34·0	34·0	34·8	34·4	34·1	33·7	34·1	35·3	33·7	33·9
1882–83	...	33·1	33·0	32·3	33·2	32·9	33·2	33·5	33·7	33·1	33·0	32·6	31·9	33·6
1883–84	...	32·1	33·2	32·6	33·2	34·1	35·3	37·9	34·8	34·3	34·4	34·8	33·8	34·6
1884–85	...	33·2	33·3	33·0	32·8	33·7	31·7	29·3	28·1	27·7	28·0	27·5	28·5	31·3
1885–86	...	29·0	28·6	28·1	29·1	30·2	29·3	29·0	28·7	28·4	27·3	28·1	29·2	29·3
1886–87	...	28·5	28·1	30·0	30·0	30·5	31·1	31·8	31·5	31·6	32·1	33·4	32·9	31·6
1887–88	...	32·6	32·2	32·7	33·9	34·6	34·1	34·8	34·9	34·4	34·6	34·2	33·2	34·3
1888–89	...	33·4	33·4	33·3	33·2	33·1	33·4	33·1	32·9	33·2	32·8	33·4	32·8	33·2
1889–90	...	31·2	31·3	32·2	32·7	32·3	27·8	29·9	30·2	29·5	29·0	29·0	28·2	30·8
Average for 10 years ending June 1890.		**30·9**	**30·9**	**30·9**	**31·9**	**32·4**	**31·9**	**32·4**	**31·9**	**31·6**	**31·5**	**32·2**	**31·6**	**32·2**
1890–91	...	27·7	27·1	27·2	27·3	26·8	24·5	23·4	23·1	23·2	24·2	24·4	23·6	25·5
1891–92	...	20·6	19·3	17·3	18·9	17·3	13·1	13·2	13·0	13·4	14·2	15·2	15·3	15·9
1892-93	...	16·3	17·6	19·0	21·6	22·1	18·4	18·4	18·5	18·5	19·4	20·2	19·9	19·2

Average Price of Food-grains, in the North Arcot District, in seers of 80 tolas per rupee.

Years.		July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Annual average.
						Paddy, First sort.								
1874–75	...	25·3	26·0	25·9	27·3	28·5	30·4	31·1	31·8	32·3	33·3	32·6	32·5	29·8
1875–76	...	30·6	29·1	28·4	28·9	27·1	24·4	24·3	23·5	23·0	22·9	23·3	21·9	25·6
1876–77	...	20·7	20·2	18·7	14·7	12·6	11·1	10·7	11·5	11·4	12·0	11·0	10·9	13·9
1877–78	...	9·2	8·6	8·6	11·5	11·9	11·9	12·3	13·2	12·6	13·7	14·4	12·8	11·7
1878–79	...	12·3	13·3	14·4	15·2	16·3	17·1	18·2	19·9	19·6	20·8	21·3	20·2	17·3
1879–80	...	20·4	20·4	20·7	21·6	22·2	23·0	23·6	24·6	24·1	24·4	23·6	23·4	22·7
1880–81	...	23·0	22·9	22·6	22·8	23·0	23·9	26·2	27·0	26·6	27·6	28·2	28·2	25·7
1881–82	...	27·7	27·0	28·1	28·5	27·9	28·8	28·6	28·0	29·7	29·9	29·5	29·5	29·1
1882–83	...	28·5	28·3	28·1	27·0	26·1	26·5	27·1	27·6	28·8	27·3	27·1	26·9	27·9
1883–84	...	26·5	26·8	26·7	26·8	25·9	27·7	30·0	28·4	28·4	28·1	27·9	28·3	27·7
1884–85	...	27·3	26·6	26·0	26·1	26·9	25·6	23·6	23·4	24·0	25·1	25·3	24·7	25·7
1885–86	...	24·5	24·4	23·4	24·0	24·2	23·1	22·9	23·6	23·8	24·7	24·6	24·3	24·3
1886–87	...	24·3	24·6	25·3	25·4	25·6	26·0	27·6	26·7	27·4	28·3	27·4	28·0	26·6
1887–88	...	27·8	27·9	27·1	27·2	27·2	27·2	27·7	28·0	27·8	28·8	29·0	28·2	27·8
1888–89	...	27·9	27·9	27·5	26·8	26·6	27·1	26·9	27·5	27·5	27·2	27·7	27·4	27·4
1889–90	...	26·5	26·3	25·8	25·9	24·7	21·3	22·7	23·4	23·4	22·8	22·2	22·1	24·0
1890–91	...	21·6	21·4	21·1	20·8	20·5	19·3	19·2	19·0	19·3	19·1	19·0	18·1	19·9
1891–92	...	17·0	16·6	15·6	15·9	15·8	13·9	14·3	14·5	14·7	15·3	15·3	14·8	15·3
1892–93	...	15·3	15·9	16·5	17·0	17·0	16·2	17·2	17·5	17·2	17·5	17·7	18·1	16·9

Average Price of Food-grains, in the North Arcot District, in seers of 80 tolas per rupee.

Years.		July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Annual average.
						Paddy, Second sort.								
1874–75	...	28·2	28·0	28·1	31·5	33·0	33·1	33·2	34·6	34·7	35·7	34·6	35·1	32·6
1875–76	...	33·1	31·2	30·7	30·8	28·4	26·2	26·0	25·1	24·6	24·0	24·7	23·1	27·4
1876–77	...	21·6	21·2	19·7	15·7	14·0	11·9	11·4	12·3	12·1	12·4	12·1	11·4	14·7
1877–78	...	9·8	9·1	9·3	12·9	13·3	14·3	14·2	14·7	13·5	14·9	15·5	13·5	12·9
1878–79	...	13·3	14·1	15·5	17·3	18·6	19·3	20·6	22·1	21·6	22·4	22·5	21·6	19·1
1879–80	...	21·7	21·8	22·1	23·3	24·7	25·3	25·6	26·3	26·1	25·7	26·0	25·8	24·5
1880–81	...	25·3	24·9	24·6	25·0	25·6	27·5	29·2	30·1	29·4	30·1	31·3	31·5	28·5
1881–82	...	29·9	29·1	30·4	31·4	30·8	31·4	31·8	30·8	32·2	32·3	31·9	31·6	31·7
1882–83	...	30·5	30·4	29·9	31·7	28·9	29·4	29·7	30·3	30·6	29·2	30·0	29·5	30·4
1883–84	...	29·0	29·5	29·3	29·7	30·5	30·9	33·8	30·6	30·2	29·8	30·6	30·5	30·5
1884–85	...	29·1	29·0	28·1	28·5	29·8	27·4	25·4	25·2	25·8	26·1	27·3	26·6	27·7
1885–86	...	26·6	27·8	27·1	26·5	26·4	25·7	25·0	24·9	25·7	26·2	26·6	26·4	26·4
1886–87	...	26·5	26·7	27·6	29·2	29·4	29·1	30·2	28·7	29·1	30·6	30·1	30·2	29·3
1887–88	...	29·7	29·8	29·3	29·6	29·6	29·6	30·2	30·5	30·7	31·8	31·7	31·0	30·2
1888–89	...	30·8	30·6	29·5	29·4	29·5	30·0	30·2	30·3	29·5	28·9	29·6	29·4	29·8
1889–90	...	28·1	28·1	27·7	27·7	27·0	23·1	24·6	25·5	25·1	24·6	24·6	24·2	25·9
1890–91	...	23·5	23·0	22·6	22·6	22·3	21·0	20·6	20·2	20·7	20·1	19·8	19·3	21·3
1891–92	...	18·0	17·4	16·5	17·3	17·1	15·1	15·7	15·9	16·0	16·4	16·6	16·0	16·5
1892–93	...	16·5	17·2	17·6	18·4	18·7	17·9	18·8	19·2	19·0	18·2	18·5	18·6	18·4

Average Annual Price of Food-grains at each Station in the North Arcot District, in seers of 80 *tolas per rupee.*

Fasli Years.		Chendragiri.	Tirupati.	Kálahasti.	Mádarpák.	Náráyanavanam (Puttúr).	Tiruttani.	Wálájápet.	Arcot.	Wandiwash.	Pólúr.	Vellore.	Gudiyáttam.	Chittoor.	Punganúr.	Palmanér.	Venkatagirikóta.	Kangundi.	District average.
									Rice, Second sort.										
1874–75	...	17·2	17·4	16·8	15·0	16·6	16·6	17·5	17·7	21·4	20·4	18·5	17·0	17·7	21·1	18·6	17·4	20·4	18·1
187·–76	...	16·2	16·8	17·1	15·3	17·2	15·8	15·0	16·5	17·6	17·7	16·7	14·7	14·6	15·7	15·1	12·7	14·3	15·8
1876–77	...	9·1	9·5	9·9	10·3	9·7	9·9	9·3	9·9	10·2	9·7	10·0	8·4	8·6	8·4	8·8	7·6	8·5	9·3
1877–78	...	7·7	8·4	8·1	7·8	8·4	8·0	8·9	9·1	8·5	9·1	8·6	8·3	7·8	7·3	7·2	6·2	7·2	8·0
1878–79	...	11·1	11·4	10·4	8·8	11·4	10·5	11·7	11·8	11·8	12·3	11·9	10·2	10·9	12·0	10·9	9·3	10·6	11·0
1879–80	...	15·0	15·5	14·9	13·2	15·3	13·9	13·9	15·1	15·3	15·3	15·1	14·2	14·5	14·8	13·8	12·4	12·8	14·4
1880–81	...	16·5	15·3	17·9	15·9	15·6	15·1	15·9	17·7	18·9	19·1	17·1	16·8	16·5	15·0	14·1	13·1	19·0	16·4
1881–82	...	18·5	19·5	19·2	17·2	16·2	17·3	19·5	19·2	21·1	22·6	18·5	18·5	17·9	16·3	15·6	13·4	19·3	18·2
1882–83	...	17·1	17·8	20·1	17·3	16·3	16·4	17·4	16·2	19·0	20·0	18·0	17·7	17·2	15·7	15·1	13·9	20·2	17·4
1883–84	...	17·1	17·3	21·1	16·5	17·0	16·0	17·5	16·2	19·9	20·6	18·7	15·4	17·5	16·7	15·8	14·7	18·6	17·4
1884–85	...	15·9	17·5	18·3	17·1	16·8	15·2	15·5	14·8	18·2	17·7	16·3	12·3	15·5	15·1	14·5	14·0	14·3	15·8
1885–86	...	15·9	16·1	16·3	16·5	16·2	15·0	15·5	14·5	17·6	17·6	16·2	12·2	14·5	14·6	12·9	11·8	12·5	15·0
1886–87	...	17·7	16·8	18·4	17·4	15·9	16·4	17·9	16·5	20·6	19·4	18·4	17·2	15·1	17·0	14·4	13·5	13·9	16·9
1887–88	...	16·9	16·6	17·0	17·6	16·2	16·1	17·6	17·9	19·4	20·0	18·1	16·8	15·0	18·4	16·0	15·1	15·9	17·1
1888–89	...	17·1	14·1	16·5	16·5	15·8	15·3	16·0	17·2	18·3	18·6	16·7	17·3	14·1	17·6	15·9	14·8	15·7	16·3
1889–90	...	14·6	12·8	14·8	13·4	13·8	12·8	12·8	14·0	14·4	15·3	14·3	14·7	12·4	14·9	14·3	13·6	14·8	14·0
1890–91	...	12·7	11·6	11·2	11·2	11·1	11·3	11·7	12·0	12·8	13·9	12·9	13·3	11·1	12·3	11·2	10·7	11·7	11·9
1891–92	...	9·8	10·3	9·8	9·4	9·6	9·8	9·9	10·2	10·9	11·8	10·4	10·8	9·8	9·1	8·9	8·0	9·2	9·9
1892–93	...	10·5	10·3	11·3	9·0	10·3	10·1	10·2	11·5	12·1	12·9	11·1	11·7	10·8	11·1	11·1	9·8	10·3	10·8

Average Annual Price of Food-grains at each Station in the North Arcot District, in seers of 80 *tolas per rupee*—cont.

Fasli Years.	Chendragiri.	Tirupati.	Kálahasti.	Mádarpák.	Náráyanavanam (Puttúr).	Tiruttani.	Wálájápet.	Arcot.	Wandiwash.	Pólúr.	Vellore.	Gudiyáttam.	Chittoor.	Punganúr.	Palmanér.	Venkatagirikóta.	Kangundi.	District average.
								Cholum.										
1874–75 ...	27·7	23·2	...	...	27·8	24·8	...	26·6	...	26·5	28·5	27·6	25·7	18·0	...	21·8	...	26·1
1875–76 ...	25·3	30·9	...	...	27·4	25·8	...	24·5	...	22·5	25·9	23·7	25·3	19·8	19·5	17·6	20·3	24·0
1876–77 ...	11·8	12·7	...	...	13·1	15·0	17·8	12·7	...	11·0	13·2	11·7	11·9	10·7	11·6	10·5	12·1	12·3
1877–78 ...	8·5	9·5	6·8	...	10·2	8·7	7·1	10·9	7·2	9·5	10·0	9·3	8·9	6·6	9·2	6·0	8·6	9·0
1878–79 ...	14·6	13·3	11·2	...	15·1	12·4	15·0	16·5	...	17·0	17·0	15·3	14·5	9·5	13·7	13·8	20·4	15·3
1879–80 ...	18·9	19·6	23·2	...	22·1	...	...	21·7	...	22·2	22·3	22·8	21·7	...	...	...	18·2	21·0
1880–81 ...	18·2	28·2	...	...	26·1	26·9	...	23·8	...	27·1	28·5	29·4	25·0	...	23·0	...	28·6	25·7
1881–82 ...	24·1	33·5	...	...	29·8	...	...	28·3	...	35·5	34·4	33·6	32·0	...	33·2	...	35·3	31·5
1882–83 ...	27·3	30·9	...	...	33·3	...	...	26·4	...	32·1	33·2	33·1	30·9	...	27·9	...	45·4	30·8
1883–84 ...	30·7	...	...	...	36·1	...	28·1	29·8	...	36·0	36·3	30·5	34·4	...	36·4	...	...	32·9
1884–85 ...	29·0	30·9	...	..	34·9	...	22·4	25·8	...	29·8	26·5	21·8	25·6	...	...	...	...	27·3
1885–86 ...	27·3	...	...	...	31·5	...	21·8	24·7	...	26·4	26·6	20·4	25·2	...	20·0	14·3	...	24·6
1886–87 ...	27·3	...	...	...	32·4	...	26·4	29·3	...	23·2	35·0	31·4	33·2	...	22·7	22·9	...	29·2
1887–88 ...	30·9	19·3	...	...	32·6	...	25·6	28·0	...	32·7	33·5	28·5	...	...	26·5	22·3	...	29·5
1888–89 ...	...	...	...	...	30·1	...	23·0	25·9	...	30·4	27·6	26·2	...	28·8	27·0	...	...	27·2
1889–90 ...	26·9	...	18·3	...	33·0	30·7	20·1	23·3	...	26·6	28·9	27·8	24·5	...	...	...	...	26·7
1890–91 ...	...	20·9	19·7	...	25·4	...	...	23·6	...	21·5	23·5	23·2	23·2	...	...	...	...	22·9
1891–92 ...	13·3	15·1	14·6	13·4	14·0	13·8	...	14·5	14·1	14·7	15·8	15·8	14·4	...	13·3	...	...	14·4
1892–93 ...	17·8	16·1	...	...	15·8	14·3	...	16·0	15·3	16·0	16·5	18·1	16·8	...	17·7	...	...	16·4

Average Annual Price of Food-grains at each Station in the North Arcot District, in seers of 80 *tolas per rupee*—cont.

Fasli years.	Chendragiri.	Tirupati.	Kálahasti.	Mádarpák.	Náráyanavanam (Puttúr).	Tiruttani.	Wálájápet.	Arcot.	Wandiwash.	Pólúr.	Vellore.	Gudiyáttam.	Chittoor.	Punganúr.	Palmanér.	Venkatagirikóta.	Kangundi.	District average.
								Cumbu.										
1874–75 ...	26·0	27·1	31·5	...	25·3	25·7	...	24·5	...	27·6	27·6	26·3	25·2	...	...	24·5	37·4	27·1
1875–76 ...	21·7	28·9	...	...	23·9	22·1	...	22·7	...	23·1	22·8	20·4	22·0	...	21·9	19·4	23·7	22·3
1876–77 ...	11·0	12·7	...	...	11·3	13·6	11·9	12·4	...	13·1	12·5	10·6	11·0	10·0	10·7	9·3	11·6	11·5
1877–78 ...	8·2	9·0	8·9	...	9·3	10·3	8·5	10·9	...	9·2	9·9	8·9	8·2	9·5	8·6	8·1	10·2	9·2
1878–79 ...	15·3	15·1	14·5	...	15·1	17·8	17·9	17·5	...	18·8	17·2	16·2	16·7	16·2	14·4	15·1	18·9	16 5
1879–80 ...	18·7	20·9	22·8	...	21·0	21·2	...	21·4	...	22·7	22 6	21·4	22·5	...	19·0	18·4	21·8	21·3
1880–81 ...	19·8	28·2	29·8	...	25·1	26·8	24·5	23·3	...	26·2	27·2	26·1	27·9	...	23·1	...	36·6	26·5
1881–82 ...	23·2	33·3	...	...	28·6	...	...	27·1	...	32·7	31·5	29·2	31·1	...	26·9	...	37·3	30·3
1882–83 ...	25·9	29·2	...	...	28·7	...	24·2	25·5	...	30·1	30·3	29·6	29·5	...	28·7	...	44·9	29·1
1883–84 ...	27·8	28·0	...	...	30·6	...	27·0	29·0	...	33·4	33·7	27·5	31·8	...	32·8	...	45·6	31·9
1884–85 ...	26·4	28·0	27·3	...	26·3	...	21·5	22·6	...	27·8	26·2	18·2	24·0	...	34·9	...	34·1	25·6
1885–86 ...	26·4	...	32·4	...	26·0	...	21·5	22·5	...	25·7	24·6	19·8	17·3	...	24·9	...	29·9	24·8
1886–87 ...	27·2	...	34·3	...	27·2	...	24·1	26·0	...	28·7	30·0	27·5	31·4	...	...	...	31·1	28·2
1887–88 ...	33·3	...	31·9	...	27·8	...	24·1	26·5	...	30·6	30·1	27·1	30·5	39·4	28·7	...	36·5	29·7
1888–89 ...	...	...	32·1	...	26·2	...	24·0	23·9	...	28·0	26·8	22·7	...	32·8	26·4	...	36·3	27·4
1889–90 ...	24·4	26·4	27·6	...	24·8	27·8	24·0	21·4	...	23·2	25·9	24·5	22·4	...	24·6	...	36·8	25·7
1890–91 ...	...	17·7	17·3	...	20·2	...	...	20·7	...	22·1	21·4	20·2	20·4	...	...	...	27·7	21·2
1891–92 ...	11·7	12·9	12·7	...	12·2	11·8	...	12·6	12·2	14·9	13·0	13·1	12·0	...	11·0	...	15·6	12·9
1892–93 ...	16·3	15·8	16·1	22·8	16·0	13·1	...	13·6	11·0	17·9	15·0	17·2	14·3	...	16·4	...	20·1	16·2

Average Annual Price of Food-grains at each Station in the North Arcot District, in seers of 80 tolas per rupee—cont.

Ragi.

Fasli years.		Chendragiri.	Tirupati.	Kálahasti.	Mádarpák.	Náráyanavanam (Puttúr).	Tiruttani.	Wálájápet.	Arcot.	Wandiwash.	Pólúr.	Vellore.	Gudiyáttam.	Chittoor.	Punganúr.	Palmanér.	Venkatagirikóta.	Kangundi.	District average.
1874–75	...	27·7	30·6	26·9	27·1	27·9	28·1	26·6	26·7	25·2	27·2	30·3	29·9	28·9	38·8	32·7	36·4	40·8	30·1
1875–76	...	25·5	27·4	27·3	25·4	26·9	25 0	21·5	24·1	22·5	24·1	25·0	23·6	25·5	25·2	24·4	22·5	26·9	24·9
1876–77	...	12·8	13·8	12·2	17·1	13·3	14·1	12·0	12·9	14·0	12·6	13·3	11·9	12·0	10·9	11·3	10·2	11·6	11·4
1877–78	...	9·1	10·6	10·7	10·8	11·4	10·4	10·0	10·4	10·4	9·3	10·0	9·7	9·1	8·7	8·8	7·8	9·1	8·8
1878–79	...	17·1	17·1	15·9	14·6	17·4	17·8	17·2	17·1	17·2	17·8	18·1	16·8	17·3	17·4	16·9	15·0	18·4	17·0
1879–80	...	23·7	26·1	25·9	22·6	23·5	22·5	21·6	22·3	23·8	23·6	24·2	24·2	25·6	23·8	23·4	22·0	22·4	23·6
1880–81	...	32·6	33·6	32·5	26·3	28·8	28·4	26·1	26·4	27·5	27·9	29·2	29·6	31·1	28·9	29·5	28·2	37·8	29·7
1881–82	...	38·2	38·2	38·5	30·1	33·6	34·7	31·4	30·4	30·8	34·9	33·9	32·2	35·1	35·1	32·4	29·8	37·0	33·9
1882–83	...	37·9	36·1	38·2	32·1	35·4	34·4	29·2	29·3	30·8	31·5	34·3	31·6	34·7	31·4	32·9	26·7	44·1	33·6
1883–84	...	37·4	35·6	36·7	31·1	34·3	35·2	29·9	30·5	31·4	34·5	36·0	28·5	36·0	37·1	37·7	31·5	45·4	34·6
1884–85	...	34·0	34·9	35·9	32·0	32·7	33·7	27·6	28·2	28·0	29·2	32·0	23·2	32·0	35·6	32·4	27·7	33·0	31·3
1885–86	...	29·8	31·2	32·8	30·8	31·6	29·8	28·1	26·7	29·2	29·3	31·1	22·9	31·6	30·6	28·0	24·9	30·1	29·3
1886–87	...	31·3	29·9	36·3	30·8	30·6	31·8	29·0	29·1	28·7	29·8	33·5	31·8	32·8	39·3	32·9	26·6	33·0	31·6
1887–88	...	35·5	34·9	33·4	28·4	32·7	30·3	30·6	30·9	29·2	31·4	36·0	34·5	35·9	47·9	39·0	30·2	46·6	34·3
1888–89	...	35·3	34·5	34·5	28·4	30·9	29·9	28·8	29·1	28·5	29·5	33·3	34·1	34·2	45·2	37·5	33·0	37·3	33·2
1889–90	...	31·5	31·6	30·3	26·8	29·3	27·8	27·6	28·1	24·0	26·9	30·7	31·0	31·4	40·2	35·1	33·7	37·1	30·8
1890–91	...	26·2	25·2	24·0	21·7	23·7	23·7	23·8	24·5	21·4	22·3	25·9	26·3	25·5	31·5	26·1	31·6	29·4	25·5
1891–92	...	15·5	16·9	15·7	14·2	15·6	15·1	15·5	15·6	14·8	15·2	16·6	16·5	16·1	17·5	16·2	15·6	17·8	15·9
1892–93	...	17·5	19·5	19·1	16·5	18·1	17·9	18·4	18·6	17·6	17·8	19·9	19·5	19·2	23·2	21·1	20·0	22·0	19·2

Average Annual Price of Food-grains at each Station in the North Arcot District in seers of 80 *tolas per rupee*—cont.

Paddy, First Sort.

Fasli years.	Chendragiri.	Tirupati.	Kálahasti.	Mádarpák.	Náráyanavanam (Puttúr).	Tiruttani.	Wálájapet.	Arcot.	Wandiwash.	Pólúr.	Vellore.	Gudiyáttam.	Chittoor.	Punganúr.	Palmanér.	Venkatagirikóta.	Kangundi.	District average.
1874–75 ...	29·0	27·9	27·9	27·4	25·7	27·1	27·9	29·3	...	33·3	28·2	29·6	29·3	40·2	33·4	28·2	31·8	29·8
1875–76 ...	26·4	27·2	27·8	28·0	26·6	26·1	23·7	26·4	...	28·5	25·2	24·2	24·2	27 0	24·7	20·8	23·2	25·6
1876–77 ...	13·9	14·3	14·6	19·8	14·0	14·3	14·1	15·0	...	15·2	14·3	12·7	12·5	12·6	13·2	11·1	13·4	13·9
1877–78 ...	10 7	11·8	11·1	...	12·1	11·7	12·6	13·3	...	12·8	12·5	12·1	11·3	10·1	11·1	8·1	11·8	11·7
1878–79 ...	16·8	16·8	16·3	...	16·8	15·7	15·3	17·9	...	18·6	17·6	14·0	17·3	21·8	18·2	...	18·6	17·3
1879–80 ...	24·2	22·5	22·2	25·6	22·7	21·4	15·9	21·9	...	23·5	21·3	21·4	23·0	28·0	22·7	...	21·6	22·7
1880–81 ...	25·9	23·8	28·4	26·0	23·7	24·3	20·4	24·3	...	27·7	24·7	25·1	26·1	28·7	24·3	...	32·3	25·7
1881–82 ...	31·3	28·6	33·5	30·7	25·7	27·1	26·6	25·9	...	32·5	26·5	28·1	28·3	30·5	28·6	...	32 6	29·1
1882–83 ...	28·3	26·6	31·4	29·5	26·8	27·8	26·0	25·3	...	29·7	25·6	25·9	26·5	27·1	28·3	...	34·2	27·9
1883–84 ...	27·2	25·7	27·9	28·0	27·9	27·7	25·8	26·1	...	30·8	26·8	24·0	27·3	30·9	29·0	...	30·8	27·7
1884–85 ...	27·1	26·2	29·3	27·8	25·9	27·6	24·8	23·7	...	27·3	24·3	20·8	24·7	27·5	26·3	...	22·7	25·7
1885–86 ...	25·9	24·6	28·2	26·0	25·3	24·3	24·3	23·7	...	27·5	23·9	20·3	23·7	25·6	22·2	...	18·8	24·3
1886–87 ...	27·6	25·5	29·5	26·2	26·6	27·9	27·3	26·1	...	30·6	27·0	25·3	24·7	29·7	24·3	...	20·7	26·6
1887–88 ...	27·9	27·3	27·6	27·2	26·5	27·3	26·7	28·0	...	31·5	28·0	25·6	26·0	34·8	28·6	...	24·4	27·8
1888–89 ...	28·7	24·9	28·6	27·9	24·8	26·3	25·9	25·2	...	29·0	25·2	24·7	23·2	34·4	29·7	...	31·6	27·4
1889–90 ...	24·2	23·0	23·5	27·1	22·1	21·6	21·4	21·0	...	24·0	21·9	23·3	21·8	30·0	25·9	...	30 9	24·0
1890–91 ...	19·8	19·1	18·7	18·2	18·2	19·5	20·3	19·2	...	21·2	19·6	19·6	19·4	21·0	20·0	...	16·0	19·9
1891–92 ...	14·4	15·3	15·4	14·6	15·0	14·9	15·8	16·4	...	17·4	15·8	15·6	15·0	13·7	14·8	...	...	15·3
1892–93 ...	16·1	16·2	17·9	...	15·9	15·8	15·7	17·0	20·6	19·0	16·9	15·8	17·2	15·6	18·6	...	...	16·9

Average Annual Price of Food-grains at each Station in the North Arcot District in seers of 80 *tolas per rupee*—cont.

Fasli years.	Chendragiri.	Tirupati.	Kálahasti.	Mádarpák.	Náráyanavanam (Puttúr).	Tiruttani.	Wálájapet.	Arcot.	Wandiwash.	Pólúr.	Vellore.	Gudiyáttam.	Chittoor.	Punganúr.	Palmanér.	Venkatagirikóta.	Kangundi.	District average.
Paddy, Second Sort.																		
1874–75	30·6	29·9	31·1	28·3	29·4	30·2	30·2	33·0	...	39·2	31·5	31·7	31·2	42·2	34·7	30·5	36·6	32·6
1875–76	26·9	29·7	30·6	28·5	28·6	28·1	25·2	28·5	...	31·4	26·6	25·6	25·6	28·2	26·0	22·8	25·5	27·4
1876–77	14·3	15·3	15·6	20·5	14·7	14·8	15·6	15·9	...	16·3	15·1	13·4	13·5	13·4	13·8	12·0	14·4	14·7
1877–78	11·2	13·2	12·4	...	13·5	12·9	14·8	14·6	...	13·9	13·3	13·2	12·3	11·3	11·8	8·8	13·3	12·9
1878–79	17·5	18·2	17·4	...	18·4	17·0	19·4	19·6	...	21·2	18·7	18·2	18·1	23·9	18·9	...	20·5	19·1
1879–80	25·0	24·5	24·5	27·3	24·6	22·6	22·6	25·1	...	26·0	23·5	23·8	24·3	29·5	23·4	...	23·0	24·5
1880–81	26·9	27·3	32·2	29·1	25·0	25·9	26·0	27·2	...	31·9	27·7	28·6	28·0	30·7	24·9	...	35·7	28·5
1881–82	32·5	31·0	37·4	31·3	27·6	28·7	32·0	29·1	...	37·6	29·9	31·3	30·6	32·6	29·3	...	34·3	31·7
1882–83	29·5	28·8	34·7	30·2	28·4	29·2	29·2	28·7	...	33·4	28·7	29·6	28·3	30·0	29·1	...	38·2	30·4
1883–84	28·2	28·5	32·0	28·7	29·9	29·3	30 6	30·0	...	35·2	29·7	27·3	29·3	33·6	29·8	...	34·8	30 5
1884–85	27·4	28·6	33·4	29·1	27·5	29·6	27·5	26·5	...	29·9	26·9	22·8	26·3	29·6	27·0	...	24·3	27·7
1885–86	27·4	26·2	31·8	27·5	26·8	26·6	26·9	26·1	...	29·9	26·7	22·2	25·5	27·3	24·3	20·6	20·8	26·4
1886–87	28·9	29·3	33·4	29·3	28·2	28·9	31·5	30·6	...	34·2	29 5	28·3	28·0	31·9	25·8	...	22·7	29·3
1887–88	29·8	27·2	30·4	29·2	28·0	28·6	30·1	30·8	...	34·6	29·6	30·1	29·3	37·0	29·7	...	27·9	30·2
1888–89	30·6	27·2	31·9	29·2	26·3	27·9	29·0	29·4	...	31·9	27·5	28·8	25·9	36·6	31·3	...	33·7	29·8
1889–90	25·4	24·5	26·0	24·2	24·1	23·1	24·7	23·8	...	26·3	23·7	24·5	23·4	34·0	27·6	...	32·8	25·9
1890–91	20·7	20·3	20·1	19·2	19·8	20·3	22·4	21·4	...	23·0	20·7	21·5	20·9	23·0	21·3	...	16·6	21·3
1891–92	15·5	16·8	16·6	15·5	15·9	15·9	17·9	17·5	...	18·9	16·7	16·8	16·1	15·2	15·6	...	...	16·5
1892–93	17·1	17·6	18·7	15·8	17·0	16·7	19·2	19·2	23·0	21·3	17·9	18·0	18·5	17·8	19·3	...	...	18·4

II. M

CHAPTER V.

PUBLIC HEALTH.

CHAP. V. VITAL STATISTICS.

In the municipal towns births and deaths are registered by a special agency, and elsewhere the work forms part of the duty of the village accountant. The registration is better done in the towns than in the rural areas, but in both cases it is defective and the statistics are at present only of value for comparison of one year with another. The inaccuracy of the registers can be judged by the fact that, according to them, the excess of births over deaths during the period between the census of 1881 and that of 1891 was 203,400, while the increase of population, as shown by the census returns, was 357,600. There is no reason to believe that the census was more or less accurate in the one year than the other, and it is certain that there has been no gain by immigration into the district. The error then must lie in the registration of births and deaths, and it is greater in proportion in the case of births than deaths. It is probable that the true birth-rate is about 50 per mille per annum and the true death-rate about 35 per mille per annum. The registered mean birth-rate, however, for the years 1888–1892 is under 20 in Palmanér, Chendragiri and Kangundi, while the highest rate is 30·73 (in Arni). The death-rate is only 12·30 in Kangundi and the highest rate is 21·99 (in Arcot). The rates for the whole district are 26·00 for births and 18·66 for deaths. But in the Wálájápet[1] and Vellore[1] municipalities the rates are nearer the truth. In the former the birth-rate is 40·79 per mille and the death-rate is 32·20 per mille. In Vellore the birth-rate is 35·09, but the death-rate is only 24·47. Registration is best in the case of Hindus, who have for the five years 1888–1892 a mean birth-rate of 26·76 and a mean death-rate of 19·31 per mille. For Musalmans the rates are 18·19 and 15·03, while for Christians they are as low as 7·17 and 5·97. Taking the figures, however, as they stand, some useful information can be obtained from them.

Birth-rate.

The birth-rate shows a small decline in 1885 and 1888 and a heavy drop in 1892, viz., from 28·67 to 22·06 per mille. This last falling off in the number of births can be traced to the bad season and high prices of 1891, but the decline in the other two years cannot be explained in the same way, for the rainfall was good and prices low both in 1884 and in 1887. The statement giving the

[1] These birth and death-rates are calculated on the figures for the three years 1890-92.

CHAP. V. VITAL STATISTICS.

Birth-rate.

births in each month shows that births are most numerous from July to October, while their number is lowest during February, March and April. The difference is considerable, the births in August being nearly double those in February. This periodicity is found throughout the presidency and occurs in a more or less marked form in most countries. Its causes are at present obscure. There are on an average 104 boys born to every 100 girls.

Death-rate.

In the 11 years 1882–1892 the death-rate fluctuates between 13·65 per mille in the first year of the series and 21·86 per mille in 1891. The rate of mortality is lowest in April, May and June and highest in November, December and January. In other words the hot weather is the most healthy season and the cold weather the most unhealthy. Nearly 23 per cent. of the total deaths occur among infants under one year of age; but high as this proportion is, there can be no doubt that many of the deaths of infants escape registration, for the registered deaths give an infant mortality of only 124 per mille for males and 102 per mille for females, while the actual rate is certainly double this.

Causes of death.

The following abstract shows the principal causes of death. The returns on which it is based are unfortunately defective, for 40 per cent. of the deaths are shown under the indefinite head of 'all other causes.' Of the specified diseases, fever is the most fatal. Small-pox shows no sign of abating in spite of the advance of vaccination, but this may be due to improved registration. The deaths from suicide are at the rate of 74 per million living; in England and Wales the rate is about 80 per million. In that country the tendency to suicide is much greater among males than females, while in North Arcot, as in the presidency generally, the reverse is the case. In England and Wales the ratios in 1887 were 122 per million for males and 39 per million for females. In North Arcot the mean ratios of 1888 to 1892 were 58 per million for males and 90 per million for females.

Statement showing the Average Number of Deaths from different causes in the District of North Arcot during the years 1882–1892.

Causes of death.	Average number of deaths.	Percentage.
Cholera	3,018	8·08
Small-pox	2,527	6·77
Fevers	14,345	38·43
Dysentery and diarrhœa	1,342	3·60
Suicides	140	0·37
Wounds and accidents	654	1·75
Snake-bite and killed by wild beasts ..	159	0·43
All other causes	15,143	40·57
TOTAL DEATHS ...	37,328	100·00

Statement showing the Number of Births and Deaths in the North Arcot District.

Year.	Mean population of the year.	Births.							Deaths.							Rate per mille of population of		Born dead among all classes.			Number of males to every 100 females.	
		Total births.			Class.				Total deaths.			Class.										
		Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Others.	Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Others.	Births.	Deaths.	Total.	Males.	Females.	Births.	Deaths.
1882	1,867,900	**53,112**	27,136	25,976	Information not available.				**25,498**	12,784	12,714	24,447	982	69	...	**28·43**	13·65	**996**	543	453	**104·4**	100·5
1883	1,901,500	**53,600**	27,287	26,313					**29,751**	14,781	14,970	28,304	1,377	70	...	**28·19**	15·65	**1,179**	627	552	**103·7**	90·8
1884	1,935,800	**54,844**	27,821	27,023					**34,877**	17,570	17,307	33,655	1,154	68	..	**28·33**	18·02	**1,125**	603	522	**102·9**	101·5
1885	1,970,700	**52,915**	27,077	25,838					**37,954**	19,194	18,760	36,568	1,289	95	2	**26·85**	19·26	**1,040**	551	489	**104·7**	102·3
1886	2,006,300	**57,424**	29,584	27,840					**35,478**	18,242	17,236	34,398	1,020	58	2	**28·62**	17·68	**1,133**	608	525	**106·2**	105·8
1887	2,042,400	**59,152**	30,341	28,811	57,193	1,837	101	21	**40,380**	20,635	19,745	38,704	1,558	84	34	**28·96**	19·77	**1,230**	652	578	**105·3**	104·4
1888	2,079,300	**55,428**	28,229	27,199	53,642	1,659	112	15	**38,694**	19,738	18,956	36,997	1,588	94	15	**26·66**	18·61	**1,066**	583	483	**103·8**	104·1
1889	2,116,800	**57,185**	29,007	28,178	55,492	1,586	107	...	**38,275**	19,417	18,858	36,882	1,307	84	2	**27·01**	18·08	**885**	460	425	**102·9**	102·9
1890	2,154,900	**60,314**	30,674	29,640	58,387	1,823	103	1	**41,382**	20,908	20,474	39,979	1,319	84	...	**27·99**	19·20	**859**	470	389	**103·5**	102·1
1891	2,193,800	**62,889**	32,020	30,869	60,850	1,933	104	2	**47,946**	24,543	23,403	46,072	1,759	115	...	**28·67**	21·86	**865**	455	410	**103·7**	104·8
1892	2,233,400	**49,263**	25,193	24,070	47,392	1,754	112	5	**40,370**	20,739	19,631	39,025	1,259	71	15	**22·06**	18·08	**698**	370	328	**104·7**	105·6

Vital Statistics for Municipalities in North Arcot.

Year.	Municipal town.	Births.						Deaths.							
		Total births.			Class.			Total deaths.			Class.				
		Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Others.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1882 ...	Vellore	1,212	621	591	992	180	40	735	355	380	560	152	23	...
	Wálájápet	420	228	192	377	43	...	261	137	124	236	25	...	...
	TOTAL ...	**1,632**	**849**	**783**	**1,369**	**223**	**40**	**996**	**492**	**504**	**796**	**177**	**23**	...
1883 ...	Vellore	1,302	652	650	1,071	196	35	1,021	514	507	799	195	27	...
	Wálájápet	415	228	187	373	42	...	362	207	155	319	43	...	...
	TOTAL ...	**1,717**	**880**	**837**	**1,444**	**238**	**35**	**1,383**	**721**	**662**	**1,118**	**238**	**27**	...
1884 ...	Vellore	1,133	587	546	951	145	37	873	457	416	668	166	39	...
	Wálájápet	374	213	161	339	35	...	233	136	97	207	26	...	...
	TOTAL ...	**1,507**	**800**	**707**	**1,290**	**180**	**37**	**1,106**	**593**	**513**	**875**	**192**	**39**	...

Vital Statistics for Municipalities in North Arcot—cont.

Year.	Municipal town.	Births.						Deaths.						
		Total births.			Class.			Total deaths.			Class.			
		Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Total.	Males.	Females	Hindus.	Musalmans.	Christians.	Others.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1885 ...	Vellore	**1,297**	683	614	1,066	179	52	**859**	459	400	667	166	26	...
	Wálájápet	**402**	213	189	360	42	...	**281**	151	130	256	25	...	...
	TOTAL ...	**1,699**	**896**	**803**	**1,426**	**221**	**52**	**1,140**	**610**	**530**	**923**	**191**	**26**	...
1886 ...	Gudiyáttam	**388**	206	182	342	45	1	**237**	134	103	207	30	...	...
	Tirupati	**130**	73	57	129	1	...	**259**	153	106	256	3	...	...
	Vellore	**1,203**	620	583	1,023	153	27	**722**	391	331	592	113	17	...
	Wálájápet	**388**	203	185	347	41	...	**311**	136	175	265	46	...	...
	TOTAL ...	**2,109**	**1,102**	**1,007**	**1,841**	**240**	**28**	**1,529**	**814**	**715**	**1,320**	**192**	**17**	...
1887 ...	Gudiyáttam	**665**	362	303	531	134	...	**585**	303	282	451	134	...	...
	Tirupati	**234**	134	100	226	7	1	**251**	156	95	245	5	1	...
	Vellore	**1,078**	558	520	937	113	28	**809**	405	404	639	144	26	...
	Wálájápet	**392**	205	187	345	45	2	**292**	154	138	253	38	1	...
	TOTAL ...	**2,369**	**1,259**	**1,110**	**2,039**	**299**	**31**	**1,937**	**1,018**	**919**	**1,588**	**321**	**28**	...

Vital Statistics for Municipalities in North Arcot—cont.

Year.	Municipal town.	Births.						Deaths.						
		Total births.			Class.			Total deaths.			Class.			
		Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Others.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1888 ...	Gudiyáttam	**510**	268	242	434	74	2	**843**	395	448	625	217	1	...
	Tirupati	**127**	75	52	115	8	4	**229**	133	96	221	5	3	...
	Vellore	**1,445**	738	707	1,126	278	41	**1,146**	584	562	842	258	46	...
	Wálájápet	**383**	201	182	347	34	2	**336**	189	147	290	46	...	...
	Total ...	**2,465**	**1,282**	**1,183**	**2,022**	**394**	**49**	**2,554**	**1,301**	**1,253**	**1,978**	**526**	**50**	...
1889 ...	Gudiyáttam	**461**	222	239	386	74	1	**380**	202	178	316	63	1	...
	Tirupati	**143**	65	78	132	8	3	**236**	130	106	221	15	...	...
	Vellore	**1,183**	609	574	958	197	28	**1,103**	535	568	828	236	39	...
	Wálájápet	**412**	202	210	368	44	...	**349**	187	162	319	30	...	...
	Total ...	**2,199**	**1,098**	**1,101**	**1,844**	**323**	**32**	**2,068**	**1,054**	**1,014**	**1,684**	**344**	**40**	...
1890 ..	Gudiyáttam	**414**	209	205	358	55	1	**369**	175	194	300	68	1	...
	Tirupati	**360**	175	185	347	13	...	**375**	197	178	356	19	...	...
	Vellore	**1,607**	824	783	1,222	344	41	**911**	468	443	656	229	26	...
	Wálájápet	**468**	232	236	423	45	...	**366**	186	180	329	36	1	...
	Total ...	**2,849**	**1,440**	**1,409**	**2,350**	**457**	**42**	**2,021**	**1,026**	**995**	**1,641**	**352**	**28**	...

Vital Statistics for Municipalities in North Arcot—cont.

Year.	Municipal town.	Births.						Deaths.						
		Total births.			Class.			Total deaths.			Class.			
		Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Total.	Males.	Females.	Hindus.	Musalmans.	Christians.	Others.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1891 ...	Gudiyáttam	**479**	274	205	411	67	1	**414**	214	200	349	65	...	...
	Tirupati	**385**	206	179	358	24	3	**437**	228	209	418	17	2	...
	Vellore	**1,614**	858	756	1,210	370	34	**1,245**	665	580	804	396	45	...
	Wálájápet	**463**	250	213	414	49	..	**364**	197	167	325	39	...	...
	TOTAL ...	**2,941**	**1,588**	**1,353**	**2,393**	**510**	**38**	**2,460**	**1,304**	**1,156**	**1,896**	**517**	**47**	...
1892 ...	Gudiyáttam	**639**	337	302	520	117	2	**564**	280	284	492	70	...	2
	Tirupati	**317**	156	161	298	15	4	**422**	229	193	406	15	1	...
	Vellore	**1,508**	750	758	1,103	366	39	**1,142**	587	555	792	319	31	...
	Wálájápet	**352**	181	171	324	28	...	**283**	143	140	257	26	...	...
	TOTAL ...	**2,816**	**1,424**	**1,392**	**2,245**	**526**	**45**	**2,411**	**1,239**	**1,172**	**1,947**	**430**	**32**	**2**

*Statement showing the Births * and Deaths * in each Taluk of North Arcot District.*

Taluk.	Births.											
	1888.			1889.			1890.			1891.		
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
GOVERNMENT TALUKS.												
Arcot	5,218	2,723	2,495	5,537	2,800	2,737	5,467	2,685	2,782	6,162	3,048	3,114
Chendragiri	1,301	914	887	2,162	1,114	1,048	1,836	950	886	2,203	1,130	1,073
Chittoor	3,620	1,781	1,839	3,633	1,898	1,735	4,352	2,211	2,141	4,626	2,392	2,234
Gudiyáttam	3,269	1,738	1,531	3,703	1,804	1,899	3,960	2,039	1,921	4,455	2,228	2,227
Palmanér	941	471	470	871	451	420	879	431	448	927	461	466
Pólúr	4,006	2,043	1,963	4,046	2,052	1,994	4,367	2,208	2,159	4,513	2,350	2,163
Vellore	3,750	1,903	1,847	3,717	1,930	1,787	3,863	2,015	1,848	4,140	2,125	2,015
Wálájápet	6,194	3,163	3,031	6,321	3,229	3,092	7,050	3,601	3,449	7,157	3,703	3,454
Wandiwash	5,146	2,621	2,525	5,622	2,858	2,764	5,581	2,791	2,790	5,593	2,863	2,730
TOTAL ...	**33,945**	**17,357**	**16,588**	**35,612**	**18,136**	**17,476**	**37,355**	**18,931**	**18,424**	**39,776**	**20,300**	**19,476**
ZEMINDÁRIS.												
Arni	2,991	1,502	1,489	2,823	1,472	1,351	2,959	1,553	1,406	3,054	1,563	1,491
Kálahasti	3,341	1,692	1,649	3,605	1,876	1,729	3,914	1,996	1,918	3,705	1,819	1,886
Kangundi	1,277	622	655	954	505	449	878	463	415	1,189	577	612
Kárvetnagar	9,027	4,526	4,501	9,607	4,784	4,823	9,836	4,996	4,840	9,815	4,943	4,872
Punganúr	2,347	1,218	1,129	2,366	1,125	1,241	2,692	1,386	1,306	2,409	1,230	1,179
TOTAL ...	**18,983**	**9,560**	**9,423**	**19,355**	**9,762**	**9,593**	**20,279**	**10,394**	**9,885**	**20,172**	**10,132**	**10,040**
Total Rural Area ...	**52,928**	**26,917**	**26,011**	**54,967**	**27,898**	**27,069**	**57,634**	**29,325**	**28,309**	**59,948**	**30,432**	**29,516**

* Exclusive of Europeans and Eurasians.

*Statement showing the Births * and Deaths * in each Taluk of North Arcot District*—cont.

Taluks.	Births—*cont.*			Deaths.								
	1892.			1888.			1889.			1890.		
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
	14	15	16	17	18	19	20	21	22	23	24	25
GOVERNMENT TALUKS.												
Arcot	4,424	2,247	2,177	3,365	1,703	1,662	3,848	2,004	1,844	3,606	1,801	1,805
Chendragiri	1,501	775	726	1,530	778	752	1,523	790	733	1,584	821	763
Chittoor	4,126	2,080	2,046	2,878	1,522	1,356	2,766	1,366	1,400	4,024	2,038	1,986
Gudiyáttam	3,236	1,645	1,591	2,357	1,183	1,174	2,943	1,472	1,471	2,784	1,437	1,347
Palmanér	746	396	350	726	366	360	757	384	373	980	518	462
Pólúr	3,238	1,649	1,589	2,503	1,282	1,221	2,767	1,424	1,343	2,938	1,491	1,447
Vellore	3,298	1,765	1,533	3,251	1,674	1,577	3,000	1,534	1,466	2,578	1,318	1,260
Wálájápet	5,613	2,903	2,710	4,492	2,287	2,205	3,857	2,010	1,847	4,578	2,311	2,267
Wandiwash	3,702	1,906	1,796	3,341	1,737	1,604	3,539	1,838	1,701	3,715	1,866	1,849
TOTAL ...	29,884	15,366	14,518	24,443	12,532	11,911	25,000	12,822	12,178	26,787	13,601	13,186
ZEMINDÁRIS.												
Arni	2,269	1,176	1,093	1,905	967	938	1,812	888	924	1,790	895	895
Kálahasti	3,051	1,590	1,461	2,054	1,016	1,038	2,094	995	1,099	2,542	1,306	1,236
Kangundi	977	481	496	546	272	274	586	313	273	680	362	318
Kárvetnagar	8,424	4,186	4,238	5,768	2,940	2,828	5,152	2,597	2,555	5,819	2,876	2,943
Punganúr	1,838	968	870	1,385	698	687	1,526	729	797	1,834	882	952
TOTAL ...	16,559	8,401	8,158	11,658	5,893	5,765	11,170	5,522	5,648	12,665	6,321	6,344
Total Rural Area ...	46,443	23,767	22,676	36,101	18,425	17,676	36,170	18,344	17,826	39,452	19,922	19,530

* Exclusive of Europeans and Eurasians.

*Statement showing the Births * and Deaths * in each Taluk of North Arcot District*—cont.

Taluks.	Deaths—*continued.*						Average rate per mille.	
	1891.			1892.			Births.	Deaths.
	Total.	Males.	Females.	Total.	Males.	Females.		
	26	27	28	29	30	31	32	33
GOVERNMENT TALUKS.								
Arcot	4,980	2,513	2,467	3,650	1,863	1,787	30·31	21·99
Chendragiri	2,031	1,056	975	1,647	863	784	18·97	16·60
Chittoor	4,143	2,121	2,022	3,599	1,864	1,735	20·33	17·39
Gudiyáttam	3,127	1,615	1,512	2,442	1,304	1,138	23·58	17·29
Palmanér	720	340	380	847	410	437	18·13	16·74
Pólúr	3,425	1,781	1,644	2,214	1,143	1,071	28·87	19·82
Vellore	3,300	1,752	1,548	2,309	1,189	1,120	25·36	19·51
Wálájápet	5,253	2,686	2,567	4,644	2,447	2,197	28·26	19·95
Wandiwash	4,550	2,282	2,268	3,372	1,716	1,656	28·86	20·84
TOTAL ...	31,529	16,146	15,383	24,724	12,799	11,925	25·63	19·23
ZEMINDÁRIS.								
Arni	2,208	1,129	1,079	1,693	828	865	30·73	20·51
Kálahasti	3,022	1,510	1,512	2,726	1,404	1,322	23·83	16·82
Kangundi	653	313	340	858	456	402	19·52	12·30
Kárvetnagar	6,432	3,333	3,099	6,050	3,024	3,026	28·42	17·78
Punganúr	1,641	807	834	1,907	988	919	25·32	18·02
TOTAL ...	13,956	7,092	6,864	13,234	6,700	6,534	26·69	17·55
Total Rural Area ...	45,485	23,238	22,247	37,958	19,499	18,459	26·00	18·66

* Exclusive of Europeans and Eurasians.

*Statement showing the Number of Births * registered in the District of North Arcot in each Month during the years* 1888–1892.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1888	3,568	3,205	3,902	3,373	4,102	4,825	5,411	5,688	5,824	5,331	5,329	4,861	55,419
1889	4,125	3,235	4,135	3,802	4,711	4,796	5,465	5,739	5,238	5,519	5,260	5,147	57,172
1890	4,182	3,420	4,039	3,986	4,835	4,434	6,768	6,519	6,363	5,689	5,243	4,821	60,299
1891	4,009	3,548	3,626	4,298	5,180	5,747	6,757	7,377	6,127	5,907	5,092	5,210	62,878
1892	4,416	3,630	3,585	3,000	3,450	3,820	4,470	4,318	4,294	4,882	4,687	4,699	49,251
TOTAL ...	20,300	17,038	19,287	18,459	22,278	23,622	28,871	29,641	27,846	27,328	25,611	24,738	285,019
AVERAGE ...	4,060	3,408	3,857	3,692	4,456	4,724	5,774	5,928	5,569	5,466	5,122	4,948	57,004
PERCENTAGE BORN IN EACH MONTH ...	7·12	5·98	6·76	6·48	7·82	8·29	10·13	10·40	9·77	9·59	8·98	8·68	100·00

* Exclusive of Europeans and Eurasians.

*Statement showing the Number of Deaths * registered in each Month in the District of North Arcot during* 1882–1892.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1882	3,076	2,487	2,345	1,698	1,725	1,737	1,924	1,844	1,923	2,192	2,151	2,386	**25,488**
1883	2,071	1,986	1,941	1,814	2,002	1,927	2,276	2,555	2,309	2,591	3,508	4,730	**29,740**
1884	3,974	2,550	2,614	2,200	2,411	2,397	2,471	2,461	2,687	3,099	3,672	4,333	**34,869**
1885	5,131	3,776	3,415	2,701	2,637	2,488	3,003	2,789	2,592	2,784	3,290	3,340	**37,946**
1886	3,424	2,700	2,682	2,454	2,356	2,276	2,880	3,021	3,230	3,263	3,384	3,801	**35,471**
1887	3,624	3,559	3,299	2,719	2,937	2,563	2,949	2,985	3,119	3,392	3,915	5,300	**40,361**
1888	5,614	3,230	2,755	2,516	2,680	2,642	2,483	2,984	2,925	2,835	3,127	4,894	**38,685**
1889	5,577	3,206	2,964	2,281	2,620	2,508	2,720	3,096	2,991	3,250	3,269	3,778	**38,260**
1890	4,087	3,481	3,167	3,133	† 4,774	2,818	3,136	3,372	3,426	3,329	3,211	3,438	**41,372**
1891	4,518	3,795	2,797	2,675	2,697	2,938	3,979	4,527	3,753	3,863	5,244	7,148	**47,934**
1892	5,770	3,597	3,104	2,872	3,364	3,104	2,923	3,039	3,103	3,110	3,198	3,178	**40,362**
TOTAL ...	**46,866**	**34,367**	**31,083**	**27,093**	**30,203**	**27,398**	**30,744**	**32,673**	**32,058**	**33,708**	**37,969**	**46,326**	**410,488**
AVERAGE ...	**4,261**	**3,124**	**2,826**	**2,463**	**2,746**	**2,491**	**2,795**	**2,970**	**2,914**	**3,064**	**3,452**	**4,211**	**37,317**
PERCENTAGE OF DEATHS IN EACH MONTH ...	**11·42**	**8·37**	**7·57**	**6·60**	**7·36**	**6·68**	**7·49**	**7·96**	**7·81**	**8·21**	**9·25**	**11·28**	**100·00**

* Exclusive of Europeans and Eurasians.

† Excessive mortality from fever.

Statement showing the Number of Deaths from Different Causes registered in the District of North Arcot during 1892–93.

Year.	Cholera.		Small-pox.		Fevers.		Dysentery and diarrhœa.		Injuries.				All other causes.	Total deaths.		
									Suicides.		Wounds and accidents.	Snake-bite and killed by wild beasts.				
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.				Total.	Males.	Females.
1882	566	553	1,125	1,158	4,646	4,652	334	285	53	54	698	183	11,191	**25,498**	12,784	12,714
1883	1,304	1,289	1,048	1,042	5,171	5,317	379	353	54	62	688	158	12,886	**29,751**	14,781	14,970
1884	1,663	1,517	1,592	1,684	5,998	5,758	796	716	43	44	693	143	14,230	**34,877**	17,570	17,307
1885	1,594	1,359	1,094	973	7,840	7,887	773	680	43	64	773	151	14,723	**37,954**	19,194	18,760
1886	...	...	1,110	1,090	8,116	7,705	607	525	44	75	773	184	15,249	**35,478**	18,242	17,236
1887	858	729	1,607	1,634	8,733	8,171	653	513	87	110	529	156	16,600	**40,380**	20,635	19,745
1888	2,659	2,314	1,098	1,107	7,018	6,822	748	571	91	153	565	163	15,385	**38,694**	19,738	18,956
1889	1,997	1,806	851	874	7,342	7,345	809	646	86	121	569	131	15,698	**38,275**	19,417	18,858
1890	1,205	1,100	1,748	1,797	8,677	8,603	820	767	61	105	544	168	15,787	**41,382**	20,908	20,474
1891	3,942	3,417	1,558	1,537	8,143	7,955	1,162	1,001	39	53	668	169	18,302	**47,946**	24,543	23,403
1892	1,812	1,515	1,054	1,018	8,154	7,744	938	687	41	60	689	138	16,520	**40,370**	20,739	19,631
TOTAL ...	**17,600**	**15,599**	**13,885**	**13,914**	**79,838**	**77,959**	**8,019**	**6,744**	**642**	**901**	**7,189**	**1,744**	**166,571**	**410,605**	**208,551**	**202,054**
AVERAGE ...	**1,600**	**1,418**	**1,262**	**1,265**	**7,258**	**7,087**	**729**	**613**	**58**	**82**	**654**	**159**	**15,143**	**37,328**	**18,959**	**18,369**

*Statement showing the Number of Deaths * registered according to Age in the District of North Arcot during the years* 1883–1892.

Year.	Under 1 year.		1 year and under 5.		5 years and under 10.		10 years and under 15.		15 years and under 20.		20 years and under 30.		30 years and under 40.		40 years and under 50.		50 years and under 60.		60 years and upwards.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1883 ...	4,506	3,928	2,019	2,045	856	911	614	709	610	937	1,075	1,575	1,230	1,236	1,004	792	1,139	987	1,722	1,845
1884 ...	4,831	4,470	2,973	2,904	892	921	623	588	712	1,081	1,347	1,897	1,510	1,437	1,403	991	1,226	1,017	2,049	1,997
1885 ...	4,861	4,238	2,913	2,870	916	851	650	658	718	1,206	1,670	2,189	1,966	1,709	1,691	1,271	1,552	1,329	2,253	2,435
1886 ...	5,055	4,397	2,650	2,583	675	681	548	479	531	888	1,245	1,848	1,732	1,496	1,741	1,178	1,537	1,236	2,522	2,449
1887 ...	5,403	4,707	3,176	3,038	904	897	629	601	777	1,165	1,549	1,979	1,889	1,672	1,865	1,392	1,815	1,525	2,615	2,763
1888 ...	4,596	4,045	2,706	2,726	1,070	973	696	637	815	1,235	1,728	2,365	1,875	1,648	2,011	1,324	1,770	1,459	2,467	2,539
1889 ...	4,702	4,105	2,969	2,832	1,100	981	603	660	714	1,174	1,614	2,242	1,894	1,727	1,832	1,390	1,669	1,358	2,311	2,383
1890 ...	5,062	4,435	3,354	3,438	1,132	1,068	572	576	700	1,137	1,614	2,362	2,070	1,893	2,145	1,463	1,808	1,521	2,444	2,578
1891 ...	5,317	4,684	4,324	4,241	1,771	1,582	966	890	1,091	1,452	2,034	2,480	2,146	1,990	2,165	1,543	1,858	1,572	2,863	2.965
1892 ...	4,264	3,595	3,338	3,250	1,270	1,168	697	596	754	1,074	1,634	2,117	1,948	1,748	2,035	1,471	1,939	1,590	2,853	3,021
TOTAL .	**48,597**	**42,604**	**30,422**	**29,927**	**10,586**	**10,033**	**6,598**	**6,394**	**7,422**	**11,349**	**15,510**	**21,054**	**18,260**	**16,556**	**17,892**	**12,815**	**16,313**	**13,594**	**24,099**	**24,975**
AVERAGE	**4,860**	**4,260**	**3,042**	**2,993**	**1,059**	**1,003**	**660**	**639**	**742**	**1,135**	**1,551**	**2,105**	**1,826**	**1,656**	**1,789**	**1,282**	**1,631**	**1,359**	**2,410**	**2,498**
Percentage of deaths at each age to total number of deaths.	**24·83**	**22·50**	**15·55**	**15·81**	**5·41**	**5·30**	**3·37**	**3·37**	**3·79**	**6·00**	**7·93**	**11·12**	**9·33**	**8·75**	**9·14**	**6·77**	**8·33**	**7·18**	**12·32**	**13·20**

* Exclusive of Europeans and Eurasians.

CHAP. V. HOSPITALS AND DISPENSARIES.

There are 20 hospitals and dispensaries in North Arcot, which gives 1 to every 381 square miles and every 109,024 of the population, the average for the presidency being 1 to every 319 square miles and every 80,430 inhabitants.

Hospitals.	Number of beds available in 1892.			Dispensaries.
	Total.	Males.	Females.	
1. Arni	16	8	8	1. Ambúr.
2. Chittoor	34	15	19	2. Arcot.
3. Palmanér	22	12	10	3. Arkonam.
4. Punganúr	...	...	...	4. Gudiyáttam.
5. Ranipet	43	20	23	5. Kálahasti.
6. Tirupati	22	16	6	6. Kuppam.
7. Vellore	40	30	10	7. Pólúr.
				8. Puttúr.
				9. Sholinghur.
				10. Tiruvattúr.
				11. Venkatagirikóta
				12. Wálájápet.
				13. Wandiwash.
TOTAL ...	177	101	76	

The Chittoor hospital was opened in 1849, that at Vellore in 1854 and that at Ranipet in 1855. The Tirupati hospital, which is maintained by the Mahant of that place, though managed by the District Board, was opened in 1871, but in-patients were not received till 1876. The Palmanér hospital was started in 1873 and the Wálájápet dispensary in 1879. The remainder have all been opened since that year. The following figures show the growing favour with which the European method of the treatment of diseases is regarded by the people. It also shows the comparative reluctance of women to resort to skilled medical aid:

Number of Patients treated in Hospitals and Dispensaries during 1888–1892.

Year.	Number of patients.			
	Men.	Women.	Children.	Total.
1888	61,650	27,116	30,627	119,393
1889	70,640	27,435	36,292	134,367
1890	73,107	28,640	39,150	140,897
1891	79,998	33,736	48,355	162,089
1892	83,639	36,367	52,637	172,643

CHAP. V. HOSPITALS AND DISPENSARIES.

The number of in-patients has grown from 1,944 in 1888 to 2,864 in 1892. Taking the average of the years 1888–1892 it appears that 72·09 per cent. of the patients are Hindus and 19·14 per cent. are Musalmans. As the Musalmans form only 4·41 per cent. of the total population, it is evident that they use the hospitals to a relatively greater extent than the Hindus. This may be partly due to the fact that Musalmans are usually found in towns, and it is in towns that the hospitals are situated.

In the five years 1888–1892 the average annual number of patients treated was 145,878, and the following abstract shows the most common diseases among these :—

Diseases of the eye	18,894
Ulcers	15,946
Diseases of the skin	11,906
Diseases of the ear	10,424
Malarial fevers	8,070
Rheumatic affections	7,255
Diseases of the nervous system	6,371
Dyspepsia	5,288
Unspecified diseases of the digestive organs ..	19,536
Worms	4,567
Unspecified diseases of the respiratory system.	4,014

During the same period 194 major and 5,853 minor operations were performed annually.

The average expenditure on hospitals and dispensaries during these five years was Rs. 41,038, contributed as shown below. The average cost of each patient treated was Rs. 0–4–6.

Statement of the Average Annual Expenditure during 1888–1892.

	RS.
From Provincial funds	4,487
From Local funds	28,899
From Municipal funds	4,640
From other sources	3,012
TOTAL ..	41,038

Statement showing the Number of Patients treated in the Dispensaries of the North Arcot District during the years 1888–1892.

Dispensary.	Of what class.	1888.				1889.				1890.			
		Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ambúr ...	Local Fund ...	2,921	1,215	2,625	6,761	3,287	1,476	2,802	7,565	Information not available.			
Arcot ...	Do. ...	3,940	1,802	1,745	7,487	4,077	1,432	1,568	7,077				
Arkonam ...	Do. ...	...	...	...	...	...	...	...	...				
Arni ...	Do. ...	3,697	1,836	1,883	7,416	3,515	2,062	2,261	7,838				
Chittoor ...	Do. ...	6,445	3,495	2,395	12,335	7,916	3,338	3,990	15,244				
Gudiyáttam ...	Municipality.	4,523	1,705	2,412	8,640	4,193	1,435	2,504	8,132				
Kálahasti ...	Local Fund ...	1,961	878	1,561	4,400	2,187	790	1,801	4,778				
Kuppam ...	Do. ...	2,389	681	728	3,798	2,138	727	790	3,655				
Palmanér ...	Do. ...	1,794	887	1,114	3,795	2,195	917	1,257	4,369				
Pólúr ...	Do. ...	3,133	1,405	2,335	6,873	3,834	1,765	3,393	8,992				
Punganúr ...	Do. ...	2,049	931	1,279	4,259	5,239	1,844	2,946	10,029				
Puttúr ...	Do. ...	...	...	...	...	...	...	...	...				
Ranipet ...	Do. ...	4,608	2,072	1,986	8,666	4,118	1,764	1,729	7,611				
Sholingur ...	Do. ...	1,978	805	777	3,560	2,214	990	1,242	4,446				
Tirupati ...	Do. ...	3,450	1,296	1,145	5,891	4,217	1,279	1,440	6,936				
Tiruvattúr ...	Do. ...	...	...	...	...	...	...	...	...				
Vellore ...	Municipality.	10,207	4,913	4,559	19,679	12,194	4,129	4,568	20,891				
Venkatagirikóta.	Local Fund.	1,328	488	470	2,286	1,230	592	531	2,353				
Wálájápet	Municipality.	4,534	1,611	1,916	8,061	4,054	1,653	2,351	8,058				
Wandiwash ...	Local Fund ...	2,693	1,096	1,697	5,486	4,032	1,242	1,119	6,393				
	TOTAL ...	61,650	27,116	30,627	119,393	70,640	27,435	36,292	134,367	73,107	28,640	39,150	140,897

Statement showing the Number of Patients treated in the Dispensaries of the North Arcot District during the years 1888–1892—cont.

Dispensary.	Of what class.	1891. Men.	1891. Women.	1891. Children.	1891. Total.	1892. Men.	1892. Women.	1892. Children.	1892. Total.
		15	16	17	18	19	20	21	22
Ambúr	Local Fund ...	3,197	1,512	3,442	8,151	2,770	1,253	2,032	6,055
Arcot	Do. ...	4,406	1,791	1,616	7,813	4,531	1,847	2,033	8,411
Arkonam	Do. ...	2,695	989	1,225	4,909	2,914	674	1,540	5,128
Arni	Do. ...	4,761	2,351	2,717	9,829	4,125	2,493	4,202	10,820
Chittoor	Do. ...	7,410	3,290	4,253	14,953	7,502	3,372	4,302	15,176
Gudiyáttam	Municipality.	4,268	1,067	3,555	8,890	4,688	1,257	3,135	9,080
Kálahasti	Local Fund ...	1,950	774	1,698	4,422	2,348	970	1,990	5,308
Kuppam	Do. ...	1,925	692	1,023	3,640	2,041	650	989	3,680
Palmanér	Do. ...	2,275	1,149	1,760	5,184	2,655	1,481	2,187	6,323
Pólúr	Do. ...	2,839	1,575	3,236	7,650	3,339	2,044	3,559	8,942
Punganúr	Do. ...	4,910	1,840	3,438	10,188	4,712	2,019	3,209	9,940
Puttúr	Do. ...	2,175	1,103	687	3,965	2,038	959	1,161	4,158
Ranipet	Do. ...	3,782	1,711	1,568	7,061	4,909	2,425	2,436	9,770
Sholinghur	Do. ...	2,627	983	1,897	5,507	2,912	1,123	2,091	6,126
Tirupati	Do. ...	5,416	1,965	2,392	9,773	5,245	2,901	3,184	11,330
Tiruvattúr	Do. ...	2,521	980	731	4,232	2,478	1,192	1,050	4,720
Vellore	Municipality.	12,396	5,915	7,666	25,977	13,666	5,411	6,855	25,932
Venkatagirikóta ...	Local Fund ...	2,123	901	305	3,329	2,294	962	532	3,788
Wálájápet	Municipality.	4,316	1,706	2,614	8,636	4,319	1,515	2,560	8,394
Wandiwash	Local Fund ...	4,006	1,442	2,532	7,980	4,153	1,819	3,590	9,562
	Total ...	79,998	33,736	48,355	162,089	83,639	36,367	52,637	172,643

CHAP. V.
INFIRMITIES.

Number of Infirm Persons in 1,000,000 of the population.

—	Insane.		Deaf-mutes.		Blind.		Lepers.	
	1891.	1881.	1891.	1881.	1891.	1881.	1891.	1881.
North Arcot ...	177	269	992	265	1,009	1,648	521	639
Presidency ...	*216*	*326*	*757*	*533*	*1,022*	*1,600*	*354*	*468*

The foregoing statement shows that there is relatively less insanity and blindness in North Arcot than in the presidency as a whole, while the proportion of deaf-mutes and lepers is considerably higher. Of persons of unsound mind North Arcot contains a higher proportion than any of the southern districts, and only four districts (Vizagapatam, Nellore, Cuddapah and Chingleput) contain a higher proportion of deaf-mutes. There are 521 lepers in a million of the population—a proportion which is exceeded only in Madras, Chingleput and South Canara. All infirmities, except insanity, are relatively less common on the plateau than in other parts of the district. Insanity is distributed fairly evenly throughout the district; deaf-mutism is most common in the North Pálár taluks and blindness and leprosy in the tract to the south of the river.

Number of Infirm Persons per million.

—	Insane.	Deaf-mutes.	Blind.	Lepers.
Plateau taluks ...	175	778	778	160
North Pálár ...	184	1,071	934	451
South Pálár ...	167	923	1,184	719
TOTAL ...	**177**	**992**	**1,009**	**521**

The fact here brought out, that leprosy is least prevalent in the area of least rainfall, is in accordance with what is observed elsewhere.

The marginal statement contains comparative statistics of the number of infirm persons in 1881 and 1891. It will be seen that there has been a decrease of insanity, blindness and leprosy since 1881, and a large increase of deaf-mutism. The increase under the last head is probably more apparent than real, as it is believed that the number of deaf-mutes was considerably understated in 1881. It is possible, too, that a number of people who were only deaf were returned in 1891 as deaf-mutes.

Infirmity.	Number of infirm persons in	
	1891.	1881.
Insane	386	489
Deaf-mute ...	2,163	481
Blind	2,201	2,996
Leper	1,136	1,161

The degree of prevalence of each infirmity in the various castes differs widely, but the numbers in most cases are too small to allow of any reliable inference regarding the relative prevalence of any of the four maladies among each section of the population. In the following abstract only castes of which the district strength exceeds 10,000 are included; for the absolute figures for these and other castes, reference can be made to the census tables for the presidency. This abstract shows that in the case of many castes the prevalence of an infirmity differs widely from the presidency average for the caste. This suggests that the various afflictions are due rather to local circumstances than to any special characteristics of particular sections of the population.

Statement showing for each Principal Caste the Number of Persons among whom one is afflicted with each Infirmity.

Caste.	Insane.		Deaf-mute.		Blind.		Leper.	
	North Arcot.	Presidency.	North Arcot.	Presidency.	North Arcot.	Presidency.	North Arcot.	Presidency.
All castes ...	**5,649**	**4,635**	**1,008**	**1,320**	**991**	**978**	**1,919**	**2,824**
Agamudaiyan ..	5,936	8,246	890	1,095	685	873	1,781	4,181
Rázu	2,648	4,557	397	814	1,589	1,590	3,972	1,847
Kamma ...	8,392	6,077	1,098	1,185	1,728	965	4,519	5,318
Kápu or Reddi..	5,681	4,413	693	1,052	906	971	3,692	3,048
Vellála ...	6,131	6.257	842	1,231	935	1,022	1,288	3,726
Mála	9,393	5,181	...	1,646	1,879	1,168	3,131	2,509
Palli orVanniyan	7,171	7,574	1,181	1,267	818	1,194	1,269	2,393
Paraiyan ...	14,891	8.510	750	1,368	1,080	1,116	2,242	3,183
Irula	17,766	5,734	1,367	1,792	1,481	1,433	2,538	2,730
Karnam ...	1,635	3,186	...	1,464	14,714	1,641	7,357	6,019
Balija	5,357	3,996	1,042	1,122	879	902	2,344	3,134
Chetti	3,493	3,710	970	1,057	919	739	1,838	3,256
Kavarai ...	6,526	7,680	1,305	1,857	1,044	1,420	2,008	4,970
Labbai	1,746	3,026	940	1,048	679	872	1,222	3,079
Kammála ...	2,618	4,055	595	1,059	422	958	1,309	2,704
Kamsala ...	3,244	2,887	1,014	1,022	1,081	1,089	2,703	3,184
Ambattan ...	14,125	6,434	743	938	883	948	1,766	3,676
Kaikólan ...	3,498	5,787	1,113	1,179	890	980	1,440	2 461
Tsákala ...	4,482	4,135	...	1,115	17,929	1,034	5,976	2,253
Vannán	5,053	7,765	410	1,120	689	897	1,378	3,217
Golla	3,657	4,395	4,571	911	1,524	909	4,219	4,347
Idaiyan	5,666	6,474	635	1,019	658	814	1,208	2,143
Kurumban ...	5,240	6,109	2,246	1,507	749	911	15,721	7,304
Gándla	10,637	2,922	...	1,891	...	2,472	1,064	1,691
Bóya	13,869	7,642	1,156	1,535	1,387	1,059	2,774	3,225
Ídiga	14,482	3,428	965	1,442	1,810	964	3,621	1,377
Shánán ...	3,790	5,745	948	1,718	1,624	1,116	5,686	6,981
Chakkiliyan ...	5,507	11,994	318	1,378	661	1,075	1,836	5,412
Mádiga	9,431	5,218	...	1,413	3,537	1,140	5,659	3,028
Muttácha ...	4,691	3,683	1,083	1,376	853	913	1,481	2,239
Odde	27,192	6,113	2,092	1,385	2,092	1,321	5,439	7,054
Bédar or Védan.	5,814	5,574	...	2,430	3,488	1,788	2,180	2,561
Sheik	2,286	3,289	1,185	1,389	1,185	1,132	1,032	2,724

CHAP. V.
INFIRMITIES.

Persons of Unsound

Taluk.	Total Insane.			Distribu									
				0–4.		5–9.		10–14.		15–19.		20–24.	
	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Arcot	31	17	14	...	...	1	1	3	...	...	...	1	3
Arni	10	5	5	...	...	...	...	...	...	...	1	...	1
Chendragiri ..	22	8	14	...	...	...	1	...	1	...	2	...	...
Chittoor ...	38	25	13	...	1	...	...	1	1	2	1	2	3
Gudiyáttam ...	23	12	11	..	...	1	1	...	1	2	2	4	1
Kálahasti ...	25	11	14	...	...	...	...	1	...	...	...	1	1
Kangundi ...	15	8	7	1	...	...	1	...	...	1	...	4	2
Mádarpák ...	11	6	5	...	...	...	...	...	1	...	...	1	1
Palmanér ...	6	4	2	...	..	1	1	2	...	...	...	...	...
Pólúr	33	17	16	...	...	1	2	...	1	...	..	1	...
Punganúr ...	13	8	5	...	...	...	1	...	1	2	1	1	...
Puttúr	35	19	16	...	3	...	...	2	...	2	3	1	...
Tiruttani ...	38	22	16	...	...	...	2	1	1	1	1	4	2
Vellore	36	25	11	...	1	...	...	...	1	1	1	2	1
Wálájápet ...	30	15	15	...	...	...	...	...	1	1	...	1	2
Wandiwash ...	20	9	11	...	...	1	1	...	...	...	1	1	1
TOTAL ...	386	211	175	1	5	5	11	10	9	12	13	24	18

Mind by Age.

tion by Age.

25–29.		30–34.		35–39.		40–44.		45–49.		50–54.		55–59.		60 and over.	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
4	1	4	4	...	1	1	1	1	1	1	1	...	...	1	1
1	2	...	...	2	...	1	...	...	...	...	...	1	1	...	...
2	...	3	5	1	...	...	2	...	1	2	1	...	...	...	1
4	...	7	3	5	2	1	2	1	...	1	...	...	...	1	...
1	...	1	...	...	2	...	1	1	...	...	1	1	1	1	1
3	3	1	4	1	...	1	2	...	...	...	3	...	1	3	...
...	...	1	...	...	1	...	...	...	...	1	1	...	2	...	...
1	...	2	1	1	...	...	1	...	...	1	1	...	...	...	...
...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
3	1	4	3	2	1	1	5	1	1	...	1	..	...	4	1
...	...	2	...	...	...	1	1	1	...	1	...	...	...	...	1
4	3	5	2	1	2	2	2	...	1	2	...	...	...	...	...
2	1	2	2	4	1	3	2	2	3	3	1	...	...	...	...
8	...	4	1	4	2	2	1	1	...	...	...	2	2	1	1
...	4	3	2	3	1	2	1	3	1	...	...	1	...	1	3
2	...	...	...	2	1	1	2	...	1	2	2	...	...	...	2
35	15	39	27	26	15	16	23	11	9	15	12	5	7	12	11

Deaf-mutes

Taluk.	Total Deaf-mutes.			Distribu									
				0–4.		5–9.		10–14.		15–19.		20–24.	
	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Arcot ...	170	98	72	8	5	15	10	10	10	7	7	13	9
Arni ...	96	58	38	1	1	8	6	4	4	8	4	9	5
Chendragiri.	113	61	52	4	4	9	7	10	6	10	4	6	7
Chittoor ...	261	145	116	3	10	22	12	18	10	24	12	15	20
Gudiyáttam.	131	74	57	5	2	16	8	11	11	7	...	2	5
Kálahasti	90	62	28	4	2	7	4	9	6	9	3	3	4
Kangundi ...	40	22	18	1	1	2	3	1	...	2	2	7	1
Mádarpák ...	66	39	27	3	3	9	10	2	2	4	2	4	2
Palmanér ...	20	12	8	...	1	4	2	...	1	...	1	...	1
Pólúr ...	155	88	67	4	3	12	11	6	12	10	5	7	9
Punganúr ...	91	48	43	2	2	5	5	1	4	4	4	5	7
Puttúr ...	228	130	98	3	5	30	16	24	18	16	10	17	13
Tiruttani ...	213	126	87	3	3	19	10	19	14	12	14	14	8
Vellore ...	157	95	62	6	5	19	10	8	7	9	9	10	1
Wálájápet...	191	108	83	...	4	13	12	15	6	13	4	14	14
Wandiwash.	141	84	57	6	4	15	16	9	7	13	3	9	9
TOTAL ...	2,163	1,250	913	53	55	205	142	147	118	148	84	135	115

* One of them is also blind.   † Two of them are also blind.

by Age.

tion by Age.

25–29.		30–34.		35–39.		40–44.		45–49.		50–54.		55–59.		60 and over.		Not stated.	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
10	*5	7	9	5	2	7	4	3	...	5	5	1	2	6	4	1	...
4	4	4	5	5	3	2	3	3	...	2	1	4	1	4	1	...	...
4	2	6	4	3	4	...	†8	1	...	4	...	...	1	‡3	5	1	...
18	12	9	10	5	4	9	9	6	8	6	4	...	1	10	4	...	...
7	8	9	8	7	5	6	3	1	3	2	...	...	1	1	3	...	...
3	...	7	4	4	...	4	1	...	...	7	1	1	2	4	1	...	...
3	1	1	3	...	1	1	2	1	1	1	2	...	...	2	1	...	...
3	1	...	2	3	3	4	...	2	1	5	...	...	...	...	1	...	...
1	2	2	...	2	...	2	...	...	...	...	...	...	...	1	...	...	...
9	4	13	6	8	4	5	2	4	...	2	4	3	1	5	6	...	...
6	3	9	7	3	3	4	4	1	...	4	3	...	...	3	1	1	...
8	7	11	7	5	4	7	4	2	...	1	7	1	1	5	6	...	...
15	8	9	6	4	8	13	5	4	1	1	1	5	3	8	6	...	...
7	7	12	4	6	5	7	4	...	2	4	1	1	2	6	5	...	...
21	9	11	9	6	2	3	7	3	4	4	3	4	...	1	9	...	...
11	5	4	6	1	1	7	1	5	2	2	2	1	...	...	1	1	...
130	**78**	**114**	**90**	**67**	**49**	**81**	**57**	**36**	**22**	**50**	**34**	**21**	**15**	**59**	**54**	**4**	...

‡ One of them is also leprous.

CHAP. V.
INFIRMITIES.

The Blind

Taluk.	Total Blind.			Distribu									
				0–4.		5–9.		10–14.		15–19.		20–24.	
	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Arcot ...	**249**	119	130	5	3	7	6	9	8	3	5	7	8
Arni ...	**125**	55	70	2	1	4	...	5	4	1	1	3	5
Chendragiri.	**134**	65	69	3	6	3	1	2	7	4	1	8	4
Chittoor ...	**137**	73	64	1	3	6	4	2	2	5	6	7	7
Gudiyáttam.	**126**	64	62	4	4	5	3	2	4	3	5	7	4
Kálahasti ...	**82**	41	41	...	...	...	1	...	...	2	1	5	...
Kangundi ...	**57**	29	28	4	2	1	1	2	..	2	..	...	4
Mádarpák ...	**55**	28	27	1	3	1	2	2	3	2	2	1	...
Palmanér ...	**38**	22	16	1	...	2	...	...	...	1	1	3	2
Pólúr ...	**231**	117	114	5	1	7	9	7	7	7	3	8	7
Punganúr ...	**56**	31	25	1	1	2	...	2	...	2	1	2	2
Puttúr ...	**139**	81	58	1	...	2	3	4	4	7	2	5	4
Tiruttani ...	**203**	106	97	4	4	4	5	7	6	4	6	6	5
Vellore ...	**145**	73	72	1	5	4	3	3	1	7	5	6	5
Wálájápet ...	**252**	123	129	4	1	10	5	*3	7	9	8	3	10
Wandiwash.	**172**	79	93	5	...	5	5	7	5	8	5	3	4
TOTAL ...	**2,201**	**1,106**	**1,095**	**42**	**34**	**63**	**48**	**57**	**58**	**67**	**52**	**74**	**71**

* One of them is also deaf-mute.

by Age.

tion by Age.

25–29.		30–34.		35–39.		40–44.		45–49.		50–54.		55–59.		60 and over.		Not stated.	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
15	16	17	18	19	20	21	22	23	2	25	26	27	28	29	30	31	32
5	* 3	9	11	4	10	9	7	13	4	4	5	4	3	40	57	...	...
2	4	3	3	1	1	7	4	...		4	11	6	1	16	34	1	1
6	2	2	5	4	2	3	† 6	1	2	7	12	1	3	21	18	...	...
2	3	4	5	6	2	5	3	2	3	9	10	2	...	22	16	...	...
3	2	4	4	4	7	5	3	3	2	6	6	4	1	14	17	...	...
1	2	3	5	1	3	6	2	3	1	5	4	..	3	15	19	...	...
1	1	2	1	1	1	1	2	3	2	5	2	1	...	6	12	...	...
3	2	1	2	1	..	1	3	1	1	1	2	1	1	12	6	...	...
3	1	2	2	1	...	1	2	3	1	1	...	1	1	3	6	...	...
10	3	3	7	11	4	11	13	8	5	3	10	6	5	31	40	...	...
1	2	3	4	3	..	2	1	3	1	3	2	1	4	6	7	...	...
8	3	3	...	1	3	7	5	5	3	8	4	1	4	29	23	...	...
5	6	8	5	3	7	7	3	8	4	6	8	8	10	35	27	1	1
6	6	6	4	2	6	3	6	4	...	1	6	5	2	25	23	...	..
10	4	7	8	6	3	11	11	6	7	9	10	7	4	38	51	...	..
3	4	8	7	2	3	5	9	3		2	12	2	1	26	38	...	..
69	**48**	**68**	**73**	**51**	**52**	**84**	**80**	**66**	**36**	**74**	**104**	**50**	**43**	**339**	**394**	**2**	**2**

† Two of them are also deaf-mutes.

CHAP. V.
INFIRMITIES.

Lepers by

Taluk.	Total Lepers.			Distribu									
				0–4.		5–9.		10–14.		15–19.		20–24.	
	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Arcot ...	148	120	28	...	...	...	...	2	1	8	...	9	3
Arni	66	54	12	...	...	...	...	...	...	...	...	2	1
Chendragiri ...	61	44	17	...	...	1	...	2	1	2	2	3	1
Chittoor ...	72	55	17	...	...	1	..	1	2	3	1	6	2
Gudiyáttam ...	41	30	11	...	...	...	...	...	...	2	1	1	1
Kálahasti ...	36	29	7	...	...	...	...	1	...	...	...	6	...
Kangundi ..	7	6	1	...	1	...	...	...	...	...	...	...	...
Mádarpák ...	13	10	3	...	...	...	...	...	...	...	...	1	...
Palmanér ...	4	2	2	...	...	...	...	...	...	...	..	...	1
Pólúr ...	102	71	31	...	...	...	...	1	...	2	1	4	1
Punganúr ...	20	16	4	...	...	...	...	...	...	1	...	3	...
Puttúr ...	29	23	6	...	...	...	...	1	...	1	...	3	...
Tiruttani ...	120	93	27	1	...	1	...	3	...	1	...	8	3
Vellore ...	71	57	14	1	...	...	...	...	...	2	3	7	...
Wálájápet ...	173	136	37	...	...	...	...	1	1	5	1	7	5
Wandiwash ...	173	142	31	...	1	2	1	4	...	5	2	9	3
TOTAL ...	1,136	888	248	2	2	5	1	16	5	32	11	69	21

* One of them is

Age.

tion by Age.

25–29.		30–34.		35–39.		40–44.		45–49.		50–54.		55–59.		60 and over.		Not stated.	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
12	4	7	2	16	1	20	2	13	3	14	4	9	3	10	5	...	...
2	...	4	1	12	...	5	1	5	2	9	3	4	1	9	2	2	1
2	1	6	1	7	...	7	4	4	1	1	5	3	.	*6	1	...	...
3	1	6	2	10	1	11	1	3	1	6	3	4	1	1	2	...	...
2	...	1	2	4	...	6	2	5	1	2	2	3	1	4	1	...	...
2	2	1	...	2	1	8	1	4	2	1	...	...	1	4	...	...	...
2	...	...	...	...	...	1	...	...	...	...	...	1	.	2	...	...	...
...	...	1	...	3	...	...	...	2	1	...	...	1	2	2	...	...	...
...	...	...	...	...	...	1	...	1	...	...	1	...	...	...	...	...	...
9	2	11	5	7	4	12	5	5	1	7	6	4	2	9	4	..	...
1	...	...	...	1	...	2	1	2	1	3	1	1	...	2	1	...	...
...	2	4	...	2	2	2	...	4	1	3	1	1	.	2	...	...	...
8	1	8	5	14	3	10	1	12	6	10	1	8	4	9	3	...	...
9	2	5	1	4	1	9	4	6	..	5	1	2	...	7	2	...	...
12	1	17	4	21	4	21	3	15	3	15	5	6	3	16	7	...	...
15	1	13	4	20	2	25	3	14	4	14	4	9	2	12	4	...	...
79	**17**	**84**	**27**	**123**	**19**	**140**	**28**	**95**	**27**	**90**	**37**	**56**	**20**	**95**	**32**	**2**	**1**

also deaf-mute.

CHAP. V. SANITATION.

In all the municipal towns and in the unions a sanitary establishment is maintained. For the most part this staff consists of sweepers, who keep the streets clean and cart away the house-rubbish that is thrown into the dust-bins. In the municipalities and in a few of the unions, scavengers are also employed by the local authorities to remove the night soil from the houses of those who will pay for this service, and there are a number of public latrines; but in the majority of the small towns there are no arrangements of this kind, and domestic sanitary conveniences are either non-existant or of the very rudest description. There are no water-works in any of the towns, and rivers, springs, wells and ponds are the only sources of supply. Attempts are made at conserving some of these, but the success is not great and contaminated water is a frequent cause of disease. In the ordinary rural tracts no sanitary measures whatever are taken, except that prickly-pear is occasionally cleared away from the neighbourhood of houses to prevent the place being used as a latrine. The cottages are without privies and men, women and children resort to the open fields or to some tank, channel or river, the water of which is frequently used for bathing, washing clothes and drinking purposes. Occasionally the house of a wealthy ryot has private conveniences of its own, but in such cases the cess-pool and the domestic well are frequently side by side. During the occurrence of large festivals, such as those at Tirupati, Kálahasti, Tiruvattûr, Virinchipuram, &c., temporary arrangements are made in the way of providing latrines and scavengers and of conservation of drinking water, and at some places a Hospital Assistant is specially deputed to supervise the sanitary staff, as well as to afford medical aid if necessary.

VACCINATION.

As early as 1803, Government impressed upon the Collector of the district the necessity of persuading the people to seek safety from the attacks of small-pox through inoculation The work was entrusted to the European medical officers of the district, and such native practitioners as they should certify to be competent, the remuneration granted being Rs. 35, for each hundred cases that were successful. To what extent these operations were carried on does not appear from the district records, but, after vaccination became the practice, periodical returns of cases were submitted from which those of two years have been selected at random :—

Years.	Europeans and East Indians.	Hindus.	Muhammadans.	Successful.	Unsuccessful.
1854-55	682	9,550	1,460	11,484	308
1855-56	471	9,905	1,245	11,186	435

CHAP. V. VACCINATION.

Prior to 1865 the vaccination staff consisted of a Deputy Superintendent of the Apothecary class and fourteen vaccinators, a few of whom were Hospital Assistants, the whole being under the orders of the District Surgeon. In 1865 the Department of Vaccination was organised and the staff allotted to North Arcot consisted of one Superintendent and eleven vaccinators. These appear to have been disbanded in 1866, but the department was re-organised in 1868 by orders of the Government of India. Notwithstanding these changes, the average annual number of vaccinations during 1865–69 was 15,176, but in the next five years it fell to 9,685. During the famine year, 1877–78, the number of vaccinations was 60,508, this enormous increase being due to the rule that every person admitted to a famine camp must be vaccinated. The district is now divided into three vaccine circles, each of which is under the control of a Deputy Inspector. There are 37 District Board vaccinators, while five men are employed by the municipalities. The whole of the work is supervised by the Inspector of Vaccination, who is also Deputy Sanitary Commissioner.

The following table shows the great progress that vaccination has made in this district during the past few years, a progress which is attributed to the interest taken by the President of the District Board in the matter.

Year.	Vaccination.		Percentage successful.
	Total.	Successful.	
1888–89	34,566	33,435	96·73
1889–90	39,104	37,630	96·23
1890–91	49,576	47,174	95·15
1891–92	55,418	52,586	94·89
1892–93	62,187	59,933	96·38
TOTAL ...	240,851	230,758	95·81

In 1892–93 the average cost of each successful case was, in the case of Local Fund vaccinators, who do the bulk of the work, 3 annas 9 pies, the average for the presidency being 3 annas and 5 pies. The average number of persons vaccinated by each vaccinator has steadily increased, and in 1892–93 it was 1,506, the corresponding figure for the presidency being 1,449. In municipalities this average is lower and the mean cost greater. Detailed statistics are given in the following statement:—

Statement showing the Particulars of Vaccination in the North Arcot District during 1888–89 *to* 1892–93.

Local Fund, Municipal or Dispensary vaccination.	Year.	Total number of persons vaccinated.			Average number of persons vaccinated by each vaccinator.	Primary vaccination.		Re-vaccination.		Percentage of successful cases.		Average cost of each successful case.
		Total.	Males.	Females.		Total.	Successful.	Total.	Successful.	Primary vaccination.	Re-vaccination.	RS. A. P.
Local Fund	1888–89...	31,874	17,066	14,808	885	31,840	30,848	34	30	96·9	88·2	0 4 10
	1889–90 ..	35,769	19,011	16,758	993	35,659	34,447	110	76	96·6	69·1	0 4 5
	1890–91...	43,933	23,081	20,852	1,220	42,488	40,999	1,445	1,128	96·5	78·0	0 3 9
	1891–92 ..	48,841	25,344	23,497	1,357	47,143	45,219	1,698	1,375	95·9	81·0	0 3 10
	1892–93...	55,706	29,105	26,601	1,506	53,400	51,847	2,306	1,993	97·1	86·4	0 3 9
	TOTAL ...	216,123	113,607	102,516	1,194	210,530	203,360	5,593	4,602	96·6	82·3	0 4 1
Gudiyáttam Municipality	1888–89...	359	202	157	359	358	350	1	1	97·7	100·0	0 4 7
	1889–90...	318	181	137	318	318	285	...	...	99·1	...	0 6 8
	1890–91 ..	363	195	168	363	358	320	5	5	89·3	100·0	0 6 2
	1891–92 ..	688	357	331	688	653	610	35	29	93·4	82·8	0 8 4
	1892–93...	697	364	333	697	692	662	5	4	95·7	80·0	0 11 5
	TOTAL ...	2,425	1,299	1,126	485	2,379	2,227	46	39	93·6	84·8	0 8 2
Tirupati Municipality ...	1888–89..	39	22	17	39	37	28	2	2	75·7	100·0	2 1 9
	1889–90...	202	114	88	202	196	161	6	2	82·1	33·3	1 0 0
	1890–91...	653	335	318	653	635	588	18	6	92·6	33·3	0 9 0
	1891–92...	475	241	234	475	462	448	13	6	97·0	46·1	0 10 11
	1892–93..	527	268	259	527	512	499	15	9	97·5	60·0	0 10 10
	TOTAL ...	1,896	980	916	379	1,842	1,724	54	25	93·6	46·3	0 11 1

Statement showing the Particulars of Vaccination in the North Arcot District during 1888–89 *to* 1892–93—cont.

Local Fund, Municipal or Dispensary vaccination.	Year.	Total number of persons vaccinated.			Average number of persons vaccinated by each vaccinator.	Primary vaccination.		Re-vaccination.		Percentage of successful cases.		Average cost of each successful case.
		Total.	Males.	Females.		Total.	Successful.	Total.	Successful.	Primary vaccination.	Re-vaccination.	RS. A. P.
Vellore Municipality ...	1888–89...	1,544	821	723	772	1,524	1,469	20	5	96·3	25·0	0 4 5
	1889–90...	1,513	807	706	756	1,508	1,451	5	...	94·9	...	0 5 2
	1890–91...	1,584	928	656	792	1,519	1,482	65	25	97·5	38·5	0 4 9
	1891–92...	2,050	1,287	763	1,025	1,954	1,888	96	25	96·6	26·0	0 3 9
	1892–93...	2,148	1,312	836	1,074	1,919	1,873	229	137	97·6	59·8	0 4 11
	Total ...	**8,839**	**5,155**	**3,684**	**884**	**8,424**	**8,163**	**415**	**192**	**96·9**	**46·3**	**0 4 8**
Wálájápet Municipality..	1888–89...	333	188	145	333	327	316	6	5	96·6	83·3	0 6 9
	1889–90...	292	166	126	292	288	282	4	3	97·9	75·0	0 7 8
	1890–91...	320	178	142	320	297	292	23	9	98·3	39·1	0 6 7
	1891–92...	275	153	122	275	263	245	12	10	93·7	83·3	0 8 5
	1892–93...	522	268	254	522	513	488	9	9	95·1	100·0	0 4 11
	Total ...	**1,742**	**953**	**789**	**348**	**1,688**	**1,623**	**54**	**36**	**96·1**	**66·7**	**0 6 7**
Dispensaries	1888–89...	417	...	...	...	417	381	...	...	91·3	...	...
	1889–90...	1,010	...	...	...	998	919	12	4	92·0	33·3	...
	1890–91...	2,723	...	...	...	2,532	2,205	191	115	87·0	60·2	...
	1891–92...	3,089	...	...	...	2,945	2,641	144	90	89·7	61·1	...
	1892–93...	2,587	...	...	...	2,553	2,385	34	27	93·4	79·4	...
	Total ...	**9,826**	...	...	...	**9,445**	**8,531**	**381**	**236**	**90·3**	**61·9**	...

CHAPTER VI.

EDUCATION.

CHAP. VI. EDUCATION.

Early accounts of education.

THE attention of Government seems first to have been directed to the subject of education about the year 1825, when a report was submitted by the Collector showing that the district contained 630 schools and 69 colleges; by the former term were probably meant *pyal* schools and by the latter institutions in towns in which Sanskrit was taught. The total number of scholars was given as:—

	Boys.	Girls.
Bráhmans	1,116	1
Vaisyas	630	None
Súdras	4,856	32
Muhammadans	538	8
Others	552	11
TOTAL ...	7,692	52

It may, however, well be doubted whether this was a complete return.

In 1826 an Educational Committee was appointed to arrange for the establishment of Government schools, and a few were opened. Their success proved small, and for many years the *pyal* schools were the more popular. Now, however, these have fallen far to the rear, and are generally regarded by the better classes merely as a means of imparting that elementary instruction which enables boys to enter schools of a higher standard under the Educational department. The zillá school of Chittoor was established in 1856, and in the following year the Anglo-Vernacular school at Wáláját and the taluk school of Palmanér were set on foot, followed gradually by other similar educational establishments in Tirupati, Arni, Arcot and other towns. In 1861 the Grant-in-aid rules and the salary system were first brought into force and in the following year the village school system was introduced being replaced in 1868 by the results grant system. When the Local Boards were constituted the management of elementary education was handed over to them.

In 1872 a careful inquiry was instituted into the actual state of primary instruction in the district. The result is thus described in the Proceedings of the Board of Revenue, dated 3rd August 1873:

CHAP. VI. EDUCATION.

Early accounts of education.

"There are in the district of North Arcot 1,412 village (*pyal*) "schools scattered very irregularly over 5,447 villages, or about "one school to every four villages; but, as there are generally "several such schools in the populous towns, the real condition of "primary education amongst the rural population is not truly "represented by these miserable averages. In the principal divi-"sion, where the country is more backward, and there are numerous "zemindáris, the ratio is one school to 5·2 villages, and falls as low "in Kálahasti as 28 schools to 376 villages and in Palmanér as 32 "schools to 564 villages. In the southern taluks education is more "attended to, and there is one school to every 2·2 villages.

"The schools are pretty equally divided between schools of "private speculators and village subscription schools, thirty-nine "only being supported by societies or wealthy persons—zemindárs "and the like. Only 135 schools are held in places set apart for "such purposes, and by far the greater number (1,245) are entirely "rudimentary schools in which the tuition and remuneration are "very low. In 169 geography and arithmetic are taught. The "school-fees vary from a rupee to an anna per mensem, and in "more than a moiety of the whole number the fees are paid in "kind. The remuneration of masters varies from four rupees to a "few annas per mensem.

"It appears that under 20,000 children attend school in North "Arcot, or one in ten of a school-going population of more or less "than 200,000 boys (girls are not taken into account)."

According to the census of 1871, however, the number of pupils was just under 7,000 and the foregoing estimate is undoubtedly excessive.

Census statistics of education.

Of the 2,173,109 persons regarding whom education statistics were obtained at the recent census, no less than 2,000,818 individuals were unable to read and write.

The following statement shows the proportion of pupils, literates and illiterates in every 10,000 of the population in 1881 and 1891 for North Arcot and for the Presidency as a whole :—

—	Males.				Females.			
	North Arcot.		Presidency.*		North Arcot.		Presidency.*	
	1891.	1881.	1891.	1881.	1891.	1881.	1891.	1881.
Learning	332	386	338	349	19	16	34	26
Literate	1,181	1,017	1,185	1,027	47	42	69	62
Illiterate	8,487	8,597	8,477	8,624	9,934	9,942	9,897	9,912
TOTAL ...	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

* Exclusive of the Agency Tracts.

CHAP. VI. EDUCATION.

Census statistics of education.

It will be seen that the educational position of North Arcot is below the average for the Presidency. The statistics show a falling off in the proportion of the uneducated since 1881, but the change in the case of females is insignificant, and only 66 in every 10,000 of that sex can now read and write or are being taught. The proportion of male pupils was actually lower than in 1881, but the female figures exhibit some slight improvement. The number of male pupils is 36,278 and of female pupils 2,103. Taking only the population of 15 years of age and upwards it is found that 81·10 per cent. of the males and 99·36 per cent. of the females are not acquainted with even the rudiments of learning. Of boys between five and ten, only 11·58 per cent. and of those between ten and fifteen 15·09 per cent. are at school.

Statistics for each taluk.

The subjoined table shows the proportion of pupils, literates and uneducated in each taluk. Kangundi and Mádarpák contain the highest percentage of illiterate males, and are closely followed by Punganúr. In the two first mentioned taluks and in Wandiwash the proportion of uneducated females is highest. Education is most advanced in Vellore and Arcot.

Statement showing the percentage of pupils, literates and illiterates in each taluk.

Taluk.	Males.			Females.		
	Learning.	Literate.	Illiterate.	Learning.	Literate.	Illiterate.
Arcot	4·85	16·40	78·75	0·20	0·52	99·28
Arni	4·44	14·76	80·80	0·22	0·43	99·35
Chendragiri	3·45	12·25	84·30	0·19	0·48	99·33
Chittoor	2·53	9·80	87·67	0·14	0·37	99·49
Gudiyáttam	2·58	11·33	86·09	0·17	0·65	99·18
Kálahasti	3·08	10·06	86·86	0·17	0·34	99·49
Kangundi	1·70	6·12	92·18	0·07	0·15	99·78
Mádarpák	2·17	7·21	90·62	0·03	0·08	99·89
Palmanér	2·47	8·66	88·87	0·10	0·16	99·74
Pólúr	2·82	10·11	87·07	0·13	0·22	99·65
Punganúr	2·29	8·40	89·31	0·16	0·27	99·57
Puttúr	2·88	8·49	88·63	0·12	0·21	99·67
Tiruttani	3·04	10·67	86·29	0·11	0·21	99·68
Vellore	4·80	16·66	78·54	0·61	1·51	97·88
Wálájápet	3·94	14·24	81·82	0·27	0·64	99·09
Wandiwash	3·38	12·29	84·33	0·06	0·15	99·79
TOTAL ...	**3·32**	**11·81**	**84·87**	**0·19**	**0·47**	**99·34**

Statistics by religion.

The following statement shows the proportion of pupils, literates and illiterates among the followers of each of the principal religions:—

CHAP. VI. EDUCATION.

Statistics by religion.

Religion.	Males.			Females.		
	Learning.	Literate.	Illiterate.	Learning.	Literate.	Illiterate.
Hindus ...	312	1,127	8,561	13	28	9,959
Musalmans ...	668	2,097	7,235	98	341	9,561
Christians ...	704	1,474	7,822	373	802	8,825
Jains ...	895	3,529	5,576	23	22	9,955

Education is most backward among the Hindus. Female education hardly exists except among the Christians. It must be remembered that the term education as here used merely denotes the ability to read and write.

Education in municipalities.

The statistics for the four municipal towns naturally show better results than those for the district as a whole. In these two-fifths of the male population can read and write, or are being taught to do so, but even here 96 per cent. of the females are illiterate.

Statistics of Education in Municipalities.

Municipality.	Total population.			Total by education.			
				Learning.		Literate.	
	Total.	Males.	Females.	Males.	Females.	Males.	Females.
1	2	3	4	5	6	7	8
Gudiyáttam ...	18,747	9,226	9,521	411	32	2,088	80
Tirupati ...	14,242	6,874	7,368	732	29	1,908	104
Vellore ...	44,925	21,285	23,640	2,326	389	7,356	1,639
Wálájápet ...	10,485	4,943	5,542	453	73	1,737	150
TOTAL ...	88,399	42,328	46,071	3,922	523	13,089	1,373

Municipality.	Total by education—*cont.*				Percentage on total population.					
	Illiterate.		Not stated.		Learning.		Literate.		Illiterate.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
	9	10	11	12	13	14	15	16	17	18
Gudiyáttam ...	6,691	9,336	36	73	4·47	0·34	22·72	0·85	72·81	98·81
Tirupati ...	4,219	7,226	15	9	10·67	0·40	27·82	1·41	61·51	98·19
Vellore ...	11,539	22,099	64	113	10·96	1·65	34·66	4·42	54·38	93·93
Wálájápet ...	2,738	5,290	15	29	9·19	1·32	35·25	2·72	55·56	95·96
TOTAL ...	25,187	43,951	130	224	9·29	1·14	31·02	3·00	59·69	95·86

CHAP. VI. EDUCATION.

Progress of education.

But though the census tables show that education is still backward, yet it appears from the departmental statistics that very great progress has been made in the last ten years. The number of institutions of all kinds has rather more than doubled; there are nearly twice as many male pupils as there were a decade ago, and female scholars have increased more than fourfold. The total expenditure on education has risen, in the same period, from Rs. 1,24,606 to Rs. 2,06,426, and the expenditure on primary instruction from Rs. 67,043 to Rs. 1,28,664.

Schools.

In 1892–93 there were 1,583 educational institutions of all kinds; of these, 1,261 were public institutions, while 322 were private. Eight schools are managed by the Educational department, 150 by Local Boards and 24 by Municipalities. Of the rest, 680 were aided from public funds, 399 were unaided, but adopted the general official lines of working, and 322 were independent, private and indigenous schools. Classified according to the standard of instruction afforded, there were 6 high schools, 18 middle schools for boys and 6 for girls, 212 upper primary schools for boys and 16 for girls, 974 lower primary schools for boys and 23 for girls, 4 training schools for masters and 1 for mistresses, and 1 industrial school. The 322 private institutions comprised 262 elementary vernacular schools, 57 Qurán schools, 2 Arabic and Persian and 1 Sanskrit school. The above numbers include 38 special schools for Paraiyas and the kindred classes, of which 4 are Local and Municipal schools, 19 are aided from public funds and 15 are unaided. The district has no college giving university instruction. Of the villages with a population of 200 and upwards 62 per cent contain one or more public or private primary schools. North Arcot occupies a somewhat high position in this respect.

Pupils.

The total number of pupils on the rolls on the 31st March 1893 was 45,299, of whom 40,129 were males and 5,170 females. The elementary nature of the education afforded is shown by the low proportion of the pupils who are reading in high and middle schools. In the case of girls there are only 51 reading in schools above the primary standard and 50 of these are found in the vernacular middle schools.

Number of pupils in 100 reading in	Boys.	Girls.
High schools ...	0·54	...
Middle schools ...	2·28	0·99
Primary schools.	83·51	89·62
Indigenous schools	9·75	0·97
Qurán schools ...	3·05	8·42
Other schools ...	0·87	...
TOTAL ...	100·00	100·00

CHAP. VI. EDUCATION.

Pupils.

The race or caste sections of the population from which the pupils are drawn are shown in the marginal statement. More than one-half of the boys in the high schools and nearly a half of those in the middle schools are Bráhmans, and 45 out of the 94 masters in the training institutions are of this caste. Of the 51 girls at middle schools 29 are Native Christians, and all the mistresses in training and all the pupils at the industrial school are of this class. The state of Musalman education is not quite so good as the figures indicate at the first glance, for of the 5,722 pupils, 1,657 are only attending Qurán schools, where the real instruction afforded is very slight. Nearly one-half of the Musalman girl pupils are at these institutions.

Race or Caste.	Males.	Females.
Europeans and Eurasians.	43	22
Native Christians.	658	320
Muhammadans ...	4,818	904
Bráhmans	2,813	675
Other caste Hindus.	30,287	3,077
Paraiyas, &c. ...	1,505	172
Others	5	...
TOTAL ...	40,129	5,170

The marginal statement shows the classification of pupils according to the occupation of their parents or guardians. The proportion is high for officials, for even including village servants in the term, the official classes form only 2 per cent. of the population of the district. Traders form 7 per cent., landholders 57 per cent., artisans 8 per cent., coolies 19 per cent. and mendicants 0·81 per cent. It will thus be seen that though the landholders contribute a very large proportion of the pupils, yet it is lower than the ratio which they bear to the total population. The proportion is very low for traders, but there may be some difference in the system of classification in this case. A relatively high proportion of the pupils in the more advanced schools are sons of officials.

Class.	Pupils.	
	Number.	Percentage.
Officials	1,372	3·03
Petty officials ...	2,936	6·48
Traders	6,723	14·84
Landholders ...	22,122	48·83
Artisans	3,459	7·64
Coolies	7,318	16·15
Mendicants ...	406	0·90
Others	963	2·13
TOTAL ...	45,299	100·00

The number of pupils learning English is 4,563 boys and 163 girls. There has been a great relative advance in the last three years, but the number possessing a real knowledge of this language is still very small. The number of pupils studying Arabic is high, and this is especially so in the case of girls. It may be

CHAP. VI. EDUCATION. Pupils.

assumed that these are all Musalmans, so that out of a total of 904 female pupils of that religion no less than 823 are learning Arabic, and out of 4,818 boys, 2,296 are learning Arabic or Persian. It is not clear to what class the 548 girls who are learning Hindustani belong; only 81 of them can be Musalmans if the above assumption regarding the Arabic pupils is correct.

Financial.

The total expenditure on education in the district in 1892–93 was Rs. 2,06,426 and more than one-third of this was received in the shape of fees. The sources of contribution are shown on the margin. Rather more than 40 per cent. of the total was paid from public funds. Again, of the whole sum expended on education 62·33 per cent. was devoted to primary schools. The average cost per pupil was Rs. 4–8–11, and Rs. 1–13–8 of this was paid from public funds, Rs. 1–11–5 by parents in the shape of fees, and the rest from subscriptions, endowments, &c. Half an anna a week is not a heavy average fee for the education of a boy or girl.

——	Amount.	Percentage.
	RS.	
Provincial Funds...	29,846	14·46
Local do. ...	44,211	21·42
Municipal do. ...	9,898	4·79
Fees ...	77,519	37·55
Subscriptions ...	13,789	6·68
Endowments, &c....	31,163	15·10
TOTAL ...	2,06,426	100·00

I.—Statement showing the number of Institutions and Pupils on the 31st March of each year.

Year.	Number of institutions of all kinds.	Pupils.		
		Total.	Males.	Females.
1	2	3	4	5
1883–84	775	**22,060**	20,820	**1,240**
1884–85	735	**19,631**	17,765	**1,866**
1885–86	760	**21,154**	19,037	**2,117**
1886–87	692	**20,825**	18,632	**2,193**
1887–88	793	**24,269**	21,770	**2,499**
1888–89	1,146	**31,038**	28,025	**3,013**
1889–90	1,298	**34,971**	31,749	**3,222**
1890–91	1,401	**37,906**	33,909	**3,997**
1891–92	1,489	**40,879**	36,448	**4,431**
1892–93	1,583	**45,299**	40,129	**5,170**

CHAP. VI.
EDUCATION.
Statistics.

II.—Statement showing the number of Schools and Scholars according to the different stages of instruction.

Classes of institutions.	1891-92. Number of institutions.	1891-92. Number of pupils on 31st March.	1892-93. Number of institutions.	1892-93. Number of pupils on 31st March.
Public Institutions.				
School Education, General—				
Secondary schools for boys—				
High English schools for boys ...	6	216	6	217
Middle do. do. ...	14	782	12	834
Middle Vernacular schools for boys ...	3	21	6	85
Secondary schools for girls—				
High English schools for girls ...	...	...	...	...
Middle do. do. ...	...	...	...	...
High Vernacular schools for girls ...	...	...	...	...
Middle do. do. do. ...	6	53	6	46
Primary schools—				
For boys { Upper Primary	203	1,812	212	2,020
For boys { Lower do.	877	29,816	974	33,747
For girls { Upper do.	14	100	16	107
For girls { Lower do.	17	1,841	23	2,178
School Education, Special—				
Training schools for { Masters ...	4	61	4	94
Training schools for { Mistresses ...	1	12	1	16
Other special schools	1	75	1	89
TOTAL, PUBLIC INSTITUTIONS ...	1,146	34,789	1,261	39,433
Private Institutions.				
Advanced schools teaching—				
Arabic or Persian	4	400	2	210
Sanskrit	4	103	1	47
Elementary schools teaching a vernacular only or mainly	323	5,151	262	3,952
Elementary schools teaching the Qurán...	12	436	57	1,657
Other schools not conforming to departmental standards	...	...	...	...
TOTAL, PRIVATE INSTITUTIONS ...	343	6,090	322	5,866
Grand Total ...	1,489	40,879	1,583	45,299

III.—Statement showing the Institutions according to Managing Agencies.

Institutions.	31st March 1892. Schools.	31st March 1892. Scholars.	31st March 1893. Schools.	31st March 1893. Scholars.
Managed by the Department ...	7	434	8	661
Do. by the Local Boards...	130	6,773	150	7,745
Do. by the Municipal do....	24	1,214	24	1,495
Aided from public funds ...	618	18,772	680	20,745
Unaided	367	7,596	399	8,787
Private and indigenous	343	6,090	322	5,866
TOTAL ...	1,489	40,879	1,583	45,299

IV.—*Statement of Scholars distributed according to the Classes of the Community.*

Classes of institutions.		Total of scholars.	Classes of the community.							
						Hindus.				
			Europeans and Eurasians.	Native Christians.	Muhammadans.	Bráhmans.	Non-Bráhman caste Hindus.	Paraiyas and kindred classes.	Aborigines.	Others.
Public Institutions.										
University—										
Arts colleges	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Professional colleges	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Secondary schools for boys—										
Upper Secondary, English	Boys ...	217	2	19	7	123	66	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Lower Secondary, do.	Boys ...	833	5	46	59	345	375	3	...	...
	Girls ...	1	...	...	...	...	...	1	...	...
Do. Vernacular	Boys ...	81	...	...	3	32	46	...	...	...
	Girls ...	4	...	...	...	...	4	...	...	...
Secondary schools for girls—										
Upper Secondary, English	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Lower Secondary, do.	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...

IV.—*Statement of Scholars distributed according to the Classes of the Community*—cont.

Classes of institutions.		Total of scholars.	Classes of the community.						Aborigines.	Others.
			Europeans and Eurasians.	Native Christians.	Muhammadans.	Hindus.				
						Bráhmans.	Non-Bráhman caste Hindus.	Paraiyas and kindred classes.		
Public Institutions—cont.										
Secondary schools for girls—*cont.*										
Upper Secondary, Vernacular	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Lower Secondary, do.	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	46	...	29	...	1	16	...	...	...
Primary schools for—										
Boys	Boys ...	33,389	30	486	3,188	2,168	26,074	1,438	...	5
	Girls ...	2,378	6	170	169	464	1,413	156	...	...
Girls	Boys ...	44	6	14	5	...	19	...	...	...
	Girls ...	2,241	16	105	301	203	1,601	15	...	...
Training schools for—										
Masters	Boys ...	94	...	4	...	45	45	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Mistresses	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	16	...	16	...	...	...	...	...	...
Special schools	Boys ...	89	...	89	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
TOTAL, PUBLIC INSTITUTIONS ...		39,433	65	978	3,732	3,381	29,659	1,613	...	5

IV.—Statement of Scholars distributed according to the Classes of the Community—cont.

Classes of institutions.		Total of scholars.	Classes of the community.							
			Europeans and Eurasians.	Native Christians.	Muhammadans.	Hindus.			Aborigines.	Others.
						Bráhmans.	Non-Bráhman caste Hindus.	Paraiyas and kindred classes.		
Private Institutions.										
Advanced schools teaching—										
Arabic or Persian	Boys ...	210	...	...	210	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Sanskrit	Boys ...	47	...	...	...	47	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Elementary schools teaching—										
A vernacular	Boys ...	3,902	...	...	123	53	3,662	64	...	...
	Girls ...	50	...	...	...	7	43	...	...	...
The Qurán	Boys ...	1,223	...	...	1,223	...	...	...	...	...
	Girls ...	434	...	...	434	...	...	...	...	...
Other schools not conforming to departmental standards.	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
TOTAL, PRIVATE INSTITUTIONS ...		5,866	...	...	1,990	107	3,705	64	...	...
Grand Total ...		**45,299**	**65**	**978**	**5,722**	**3,488**	**33,364**	**1,677**	..	**5**

V.—Statement of Scholars distributed according to the Occupations of their parents or guardians.

Classes of institutions.		Total of scholars.	Classification of scholars according to the occupation of their parents.							
			Officials.	Petty officials.	Traders.	Landholders.	Artisans.	Coolies.	Mendicants.	Others.
Public Institutions.										
University—										
Arts colleges	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Professional colleges	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Secondary schools for boys—										
Upper Secondary, English	Boys ...	217	88	12	19	75	1	1	6	15
	Girls ...	...	...	...	...	...	...	...	...	...
Lower Secondary, do.	Boys ...	833	255	141	108	263	10	5	16	35
	Girls ...	1	...	...	1	...	...	...	...	...
Do. Vernacular	Boys ...	81	8	18	12	37	1	1	4	...
	Girls ...	4	...	...	...	3	...	1	...	...
Secondary schools for girls—										
Upper Secondary, English	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Lower Secondary, do.	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...

V.—Statement of Scholars distributed according to the Occupations of their parents or guardians—cont.

Classes of institutions.		Total of scholars.	Classification of scholars according to the occupation of their parents.							
			Officials.	Petty officials.	Traders.	Landholders.	Artisans.	Coolies.	Mendicants.	Others.
Public Institutions—cont.										
Secondary schools for girls—*cont.*										
Upper Secondary, Vernacular	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
Lower Secondary, do.	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	46	5	22	13	1	...	2	...	3
Primary schools for—										
Boys	Boys ...	33,389	684	2,070	4,445	17,261	2,875	5,353	269	432
	Girls ...	2,378	113	252	334	1,098	113	378	28	62
Girls	Boys ...	44	5	2	2	8	1	22	1	3
	Girls ...	2,241	199	240	579	437	128	507	46	105
Training schools for—										
Masters	Boys ...	94	3	24	5	47	...	2	1	12
	Girls ...	...	...	...	...	...	...	...	...	...
Mistresses	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	16	1	11	1	3	...	...	...	...
Special schools	Boys ...	89	6	30	1	49	3	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
TOTAL, PUBLIC INSTITUTIONS ...		39,433	1,367	2,822	5,520	19,282	3,132	6,272	371	667

V.—Statement of Scholars distributed according to the Occupations of their parents or guardians—cont.

Classes of institutions.		Total of scholars.	Classification of scholars according to the occupation of their parents.							
			Officials.	Petty officials.	Traders.	Landholders.	Artisans.	Coolies.	Mendicants.	Others.
Private Institutions.										
Advanced schools teaching—										
Arabic or Persian	Boys ...	210	...	7	69	29	...	44	...	61
	Girls ...	...	...	...	...	...	...	...	...	...
Sanskrit	Boys ...	47	...	...	...	15	...	...	22	10
	Girls ...	...	...	...	...	...	...	...	...	...
Elementary schools teaching—										
A vernacular	Boys ...	3,902	4	97	478	2,390	327	568	13	25
	Girls ...	50	1	3	15	28	...	1	...	2
The Qurán	Boys ...	1,223	...	6	486	240	...	332	...	159
	Girls ...	434	...	1	155	138	...	101	...	39
Other schools not conforming to departmental standards.	Boys ...	...	...	...	...	...	...	...	...	...
	Girls ...	...	...	...	...	...	...	...	...	...
TOTAL, PRIVATE INSTITUTIONS ...		5,866	5	114	1,203	2,840	327	1,046	35	296
Grand Total ...		45,299	1,372	2,936	6,723	22,122	3,459	7,318	406	963

CHAP. VI. EDUCATION. — Statistics.

VI.—Statement showing the distribution of Scholars according to Languages studied.

Languages.	Boys. 1890–91.	Boys. 1891–92.	Boys. 1892–93.	Girls. 1890–91.	Girls. 1891–92.	Girls. 1892–93.
English	2,977	4,140	4,563	91	159	163
Latin	...	...	1	...	...	...
Arabic	1,563	1,284	2,198	345	333	823
Persian	375	142	98	1	...	...
Sanskrit	265	168	151	...	...	...
Tamil	19,386	21,562	22,908	1,087	2,459	2,583
Telugu	13,547	13,975	14,921	488	1,442	1,648
Kanarese	2	...	...	...	...	...
Hindustani	2,259	1,896	1,762	363	325	548
Maráthi	...	17	...	...	8	...

VII.—Statement showing the expenditure from each source on the different classes of institutions during the year 1892–93.

Classes of institutions.	From Provincial funds.	From Local funds.	From Municipal funds.	From fees.	From subscriptions, endowments and other sources.	Total.
Government.	RS.	RS.	RS.	RS.	RS.	RS.
Colleges, general	...	...	...	...	...	...
Colleges, special	...	...	...	...	...	...
Secondary schools for Boys ...	...	...	...	...	...	...
Secondary schools for Girls ...	653	...	...	21	...	674
Primary schools for ... Boys ...	1,709	...	...	194	...	1,903
Primary schools for ... Girls ...	2,230	...	...	183	...	2,413
Training schools	3,953	...	...	...	...	3,953
Other special schools	...	...	...	...	...	...
TOTAL ..	8,545	...	...	398	...	8,943
Board.						
Colleges, general	...	...	...	...	...	...
Secondary schools for Boys ...	2,966	1,862	508	7,025	349	12,710
Secondary schools for Girls ...	...	...	...	...	...	...
Primary schools for ... Boys ...	4,731	23,520	5,206	11,827	143	45,427
Primary schools for ... Girls ...	125	246	...	14	...	385
Training schools	...	852	34	...	...	886
Other special schools	...	...	...	...	...	..
TOTAL ...	7,822	26,480	5,748	18,866	492	59,408
Aided.						
Colleges, general	...	...	...	...	...	...
Secondary schools for Boys ...	4,486	...	1,328	9,538	5,899	21,251
Secondary schools for Girls ..	138	...	...	233	604	975
Primary schools for ... Boys ...	2,061	18,542	2,836	24,901	6,611	4,951
Primary schools for ... Girls ...	2,501	7	20	89[illegible]	6,728	10,15[illegible]
Training schools	1,059	...	...	...	677	1,736
Other special schools	1,297	...	...	...	3,780	5,077
TOTAL ...	11,542	18,549	4,184	35,568	24,299	94,142

CHAP. VI.
EDUCATION.

Statistics.

VII.—Statement showing the expenditure from each source on the different classes of institutions during the year 1892-93—cont.

Classes of institutions.		From Provincial funds.	From Local funds.	From Municipal funds.	From fees.	From subscriptions, endowments and other sources.	Total.
Unaided.		RS.	RS.	RS.	RS.	RS.	RS.
Colleges, general ...	... ...	...	...	...	...	...	...
Secondary schools for	Boys ...	...	...	...	1,268	2,907	4,175
	Girls ...	...	...	...	...	...	...
Primary schools for ...	Boys ...	...	...	...	12,952	2,551	15,503
	Girls ...	...	...	...	33	368	401
Training schools ...	... ...	...	...	...	...	...	...
Other special schools	... ...	...	...	...	...	...	...
	TOTAL ...	...	...	...	14,253	5,826	20,079

NOTE.—This statement does not include indirect expenditure or the expenditure of private schools.

VIII.—Statement showing the Total Expenditure from each source.

Years.	Provincial funds.	Local funds.	Municipal funds.	Fees.	Subscriptions.	Endowments and other sources.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1883-84 ...	24,056	26,198	5,563	51,201	1,189	16,399	1,24,606
1884-85 ...	23,824	24,307	5,280	56,069	247	16,311	1,26,038
1885-86 ...	20,224	25,671	5,747	57,381	474	15,912	1,25,409
1886-87 ...	21,753	22,246	5,612	54,107	830	20,630	1,25,178
1887-88 ...	21,475	25,357	7,468	55,121	6,854	16,337	1,32,612
1888-89 ...	14,681	25,017	7,227	59,216	6,300	23,234	1,35,675
1889-90 ...	14,174	31,434	7,667	75,198	2,454	24,838	1,55,765
1890-91 ...	23,788	34,693	9,055	76,488	15,472	31,045	1,90,541
1891-92 ...	22,598	45,435	9,501	78,482	12,271	24,676	1,92,963
1892-93 ...	29,846	44,211	9,898	77,519	13,789	31,163	2,06,426

IX.—Statement showing the Expenditure on Primary Education from each source.*

Years.	Provincial funds.	Local funds.	Municipal funds.	Fees.	Subscriptions.	Endowments and other sources.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1883-84 ...	6,139	20,045	3,289	26,218	230	11,122	67,043
1884-85 ...	6,972	16,834	2,867	25,773	10	9,354	61,810
1885-86 ...	4,311	17,715	2,410	26,337	24	8,540	59,337
1886-87 ...	5,060	14,879	2,934	22,742	149	7,536	53,300
1887-88 ...	7,878	17,970	3,075	24,575	5,668	4,346	63,512
1888-89 ...	4,247	19,876	3,153	28,260	5,081	6,972	67,589
1889-90 ...	5,655	24,347	3,462	46,171	1,031	10,810	91,476
1890-91 ...	8,572	29,476	4,584	50,587	734	15,034	1,08,987
1891-92 ...	7,364	40,116	5,375	53,668	2,221	13,094	1,21,838
1892-93 ...	10,948	40,677	7,338	53,864	4,312	11,525	1,28,664

* The figures do not include the primary departments of secondary schools.

X.—Statement showing the number of Schools solely intended for Paraiyas and kindred Classes.

[Information is available for the year 1892–93 only.]

Institutions.	Schools.	Scholars.			Number of scholars learning			Classification of scholars according to race or creed.			
		Total.	Boys.	Girls.	English*	Tamil.	Telugu.	Native Christians.	Muhammadans.	Non-Bráhman caste Hindus.	Panchamas or Paraiyas and kindred classes.
Managed by the department ...	...	...	...	...	...	...	...	...	...	...	...
Managed by Local and Municipal Boards.	4	107	94	13	14	87	20	1	...	...	106
Aided from public funds ...	19	465	383	82	15	465	...	87	5	...	373
Unaided from public funds ...	15	311	282	29	...	294	17	77	4	3	227
TOTAL ...	**38**	**883**	**759**	**124**	**29**	**846**	**37**	**165**	**9**	**3**	**706**

* The figures in this column represent the number of pupils who study English as an *additional* language.

CHAPTER VII.

COMMUNICATIONS.

CHAP. VII. ROADS. Progress in road-making.

North Arcot is well provided with a large number of excellent roads. Communications were, however, not always so numerous or so well maintained as they now are. In 1811 the Collector reported them to be in 'the very worst possible condition,' and complained that he had no means of keeping them in repair. He had at first forced villagers to maintain them within their village limits, but upon the establishment of the Civil Courts an appeal had been made to the Judge, and it was ruled that the Collector had no authority to demand free labour. The only roads then in existence were the following:—

(1) Madras to Mysore *viâ* Náyakkanéri.
(2) Madras to Ceded Districts *viâ* Karakkambádi.
(3) Madras to Nellore *viâ* Kálahasti.
(4) Tirupati to Muglee Ghát.

Besides these, cart tracks of course existed, but were totally neglected. One of the best of them was the old road made by the Pioneers through Tiruttani and the Wálájá taluk to the Vellore trunk road; it is still used and styled by the natives the 'Payni báta.' During the famine an attempt was made to convert it into a regular road.

During the village lease period renters engaged to execute the necessary repairs to all communications within their villages, but the obligation was neglected, and could not easily be enforced. It was then proposed to employ convict labour, but this was obviously impossible, except in the vicinity of jails, so in 1813 an Engineer officer was deputed, with a party of Pioneers, to put the district roads in order, and after several years a special department was organised under a Superintendent of Roads. Very little, however, seems to have been spent; for, when a return was called for in 1837, the statement from 1818 up to that date exhibits blanks except for two years against which the items were—

	Spent on					
	Bridges.			Roads.		
	RS.	A.	P.	RS.	A.	P.
1832	281	5	0	2,446	11	6
1833	567	1	0	8,463	2	0

but this probably shows the expenditure by the Collector alone.

CHAP. VII. ROADS.

Progress in road-making.

Numerous complaints were received regarding the villainous character of the North Arcot roads. One written in 1838 by the Agent of the Postal Department may be given as an example. He writes, "From Arcot to Tiruvalam, five miles, is hard and stony, "endangering both horse and rider if he attempts to go beyond a "walk or gentle canter. In parts large open drains cross the road "at very short intervals. These, I perceive, tend greatly to our "detriment, as well as to that of the horses, for most of our cattle "get sprained in the drains. The road to Ambúr, through "palmyra topes, intersected by channels to let water into the "fields, is a complete swamp after a few days. To Páppánkuppam "the road is almost impassable after a shower, and during dark "nights hardly to be traced." And this, it must be remembered, referred to the great trunk road to Bangalore, more frequented than any others in the district, and presumably kept in better repair than the rest.

As late as January 5th, 1855, the Civil Engineer, Fourth Division, wrote as follows:—"The trunk roads traversing the "district are three—one going from Madras south through "Chingleput to Trichinopoly; a second from Madras west through "Ranipet, Vellore and Vániyambádi to Bangalore; and the third "from Madras north from Súlúrpet to Nellore. From the second "there branches off a road from Ranipet to Bangalore by Chittoor, "and at Chittoor another trunk road branches to Cuddapah by "Dámalcheruvu. These roads are kept regularly in repair. "Lately a road has been constructed from Vellore falling into the "Ranipet and Chittoor road at Punnattúr, thus connecting Vellore "and Chittoor. With these exceptions the district may be said to "have no communications. The tracks along which traffic labours "in the dry weather have hitherto, without exception, been next "to, if not quite, impassable in the rains."

In 1858 was first collected a road-cess of two per cent. upon the assessment of land in ryotwári taluks, which was expended in making these tracks good fair-weather roads, and, finally, passable in wet weather without much trouble.

This cess was raised from six pies to nine pies and finally to one anna in the rupee on all occupied lands, whether ryotwári, zemindári or inám. It is levied under the District Boards Act, and all roads are now under the control of the District or Taluk Boards.

Present roads.

The total length of roads in the district is 1,710 miles, of which 1,468 miles are metalled. The most important lines are the Madras-Calicut road, which traverses the Wálájá and Vellore taluks, passing through Kávéripákkam, Wálájápet, Ranipet, Vellore and Ambúr; the Bombay trunk road, which leaves the above at Rani-

Present roads.

pet and passes through Chittoor, Palmanér and Punganúr; the Kurnool trunk road from Chittoor through Pútalapattu, Pákála and Dámalcheruvu to the Cuddapah frontier; a branch from the last mentioned through Chendragiri and Kálahasti to Náyudupet in Nellore, where it joins the coast road; and a road from Arcot railway station to Wandiwash passing through Tiruvattúr. Details of the roads in each taluk will be found in the Gazetteer portion of this manual.

Avenues.

Until 1862 there was hardly a road-side avenue in the district. The remains of old avenues exist along parts of the road through Vellore to Mysore and that from Ranipet to Chittoor, but elsewhere avenues appear to have been absent. In 1862 Mr. Robinson, the Collector, began planting them extensively by the side of all the chief roads, expending one-sixth of the road fund upon this object, and, by 1871, 505 miles had been supplied with 168 young trees per mile at a cost of nearly a lakh of rupees. Besides this upwards of Rs. 30,000 had been spent upon way-side topes having wells. Owing to the rocky nature of the soil many of the trees have not made good progress, nor have they in some cases been well selected. Many, however, have flourished well, and most of the avenues are in a promising condition. There are now 1,015 miles of road with avenues, and the cost of maintaining the trees is more than covered by the sale-proceeds of their produce.

Cart-hire.

The customary official rate for the hire of carts is 1 anna per mile, but on frequented lines they can be got for less than this, while in out-of-the-way parts of the district higher rates must be paid. The ordinary load of a cart is about half a ton. The cost of carriage of goods from Wálájápet to Madras during the second quarter of this century is given below. The figures are taken from the Hon. Mr. S. Srinivasa Raghavaiyengar's *Forty Years' Progress;* he obtained them from the accounts of a Madras merchant:

Hire of a Cart from Wálájápet to Madras, a distance of 70 *miles.*

Year.	Weight carried.	Hire.	Rate per ton.
	lb	RS. A. P.	RS. A. P.
1823	900	7 0 0	17 6 9
1835	900	6 10 0	16 7 9
1837	900	5 0 0	12 7 1
1844	1,000	4 8 0	10 1 3
1847	1,000	4 0 0	8 15 4
1851	1,600	3 10 0	5 1 2

If carts are hired by the month, the usual charge is Rs. 15, the owner of the cart providing a driver and the feed of the

CHAP. VII. ROADS. Cart-hire.

bullocks. Pony carts or 'jutkas' are very common, the ordinary rate of hire being 2 annas a mile or Rs. 30 a month. The ponies are wonderfully hardy and of great stamina. They will travel from 20 to 30 miles straight away at the rate of 7 or 8 miles an hour.

RAILWAYS. The Madras Railway.

North Arcot is better off in the matter of railways than any other district in the presidency. The Madras Railway, which is on the standard gauge, enters the district some 10 miles east of Arkonam, and from the latter place the north-west line runs through Tiruttani, Puttúr and Rénigunta junction to the Cuddapah frontier. The south-west line passes through Arcot, Kátpádi junction, Gudiyáttam and Ambúr on its way to Jalarpet in Salem, and the Bangalore branch from the latter place enters the district again in the Kangundi zemindári, the principal station being Kuppam at the top of the steepest part of the ghát. The line from Madras to Arcot was opened on the 1st July 1856, and by May of the following year it was carried on as far as Vellore. A year later saw it at Gudiyáttam, and in January 1860 it was open to Ambúr. The north-west line was opened up to Nagari in March 1861, to Puttúr by the following December and to Rénigunta in September 1862.

The South Indian Railway.

The South Indian Railway, a metre gauge line, now has a very large mileage in the district. The oldest portion is that from Conjeeveram to Arkonam, which was opened on the 8th May 1865. The gauge at that time was 3 feet 6 inches and the line was called the Carnatic Railway. In 1874 it was amalgamated with the South Indian Company and the gauge altered to a metre. In 1881 the line was continued to Chingleput and thus connected with the rest of the South Indian main line. But the most important part of the South Indian system is a line which, starting from Villupuram in South Arcot, runs through Pólúr, Vellore, Kátpádi junction and Chittoor to Pákála junction. Here one branch turns eastward and passes through Chendragiri, Tirupati, Rénigunta junction and Kálahasti to Nellore, while the other branch runs northward into the Cuddapah district and joins the Southern Mahratta system at Dharmavaram and again at Guntakal, which is also a junction with the Madras Railway. These portions of the South Indian Railway were built as State lines, but are managed by the Company. The total mileage of railways in the district is 293, of which 106 belong to the Madras Railway and 187 to the South Indian.

POST OFFICES.

Until 1872 there were two postal systems working in the district, viz., the Imperial and the District Posts.

The Imperial Post was under the management of the Postmaster-General. There were at first only three lines along which it travelled through the district, the northern *viâ* Karakkambádi, the north-western *viâ* Chittoor, and the western along the great

CHAP. VII. POST OFFICES.

trunk road through Vellore; the southern taluks had no Imperial offices. As late as 1838 there were only seven of these, situated in the chief towns. Under circumstances such as these it was absolutely necessary that correspondence between the Collector, his Divisional officers, and the taluk officials should be carried by a special agency. This was called the District Dawk, and, until 1834, was used for official correspondence alone; but the peons were known to carry letters for private persons as a favour or for a small remuneration, and it was at last resolved to throw the post open to the public, rendering the charge legal, but crediting it to Government. Postage, which varied according to distance to the nearest Imperial Office, and not according to weight, was charged; the rates it seems impossible now to ascertain.

On May 1st, 1872, the District Post, which had been under the management of the Assistant Collector, was handed over to the Imperial department as a tentative measure. The result proved satisfactory, and the arrangement has been confirmed, a considerable economy being the result.

There are now 2 head offices, viz., at Chittoor and Vellore, 21 sub-offices and 65 branch offices. Statistics showing the extent of the transactions are not available, with the exception of those relating to the Savings-Bank department, which are given below:

—	1882-83.		1891-92.		1892-93.		1893-94.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.
		RS.		RS.		RS.		RS.
Deposits ...	1,944	43,935	6,007	2,01,272	6,750	1,87,820	7,642	1,91,332
Withdrawals ...	370	17,054	4,801	1,91,324	5,052	2,05,530	5,504	2,05,016
Number of accounts open at end of year.	NO. 457		NO. 3,831		NO. 4,172		NO. 4,771	
Amount at credit of depositors at end of year.	RS. 26,881		RS. 3,39,805		RS. 3,22,096		RS. 3,08,411	

The number of accounts advanced from 457 in 1882–83 to 4,771 in 1893–94, and the amount at credit of depositors in the latter year was nearly twelve times the balance in 1882–83.

TELEGRAPHS.

There are 14 Telegraph offices in the district apart from the offices at all railway stations. These 14 are combined Post and Telegraph offices. Three of the Telegraph department's lines run through the district, viz., the East Coast line, the Madras-Bombay line and the Madras-Calicut line. In addition there are the wires

CHAP. VII. BUILDINGS.

on all the lines of railway. Indeed in the matter of telegraphs as in that of railways North Arcot occupies a very favourable position.

Travellers' bungalows.

There are 56 bungalows for the accommodation of travellers. Of these 21 are maintained by the Local Boards and these are open to all travellers alike, public officers having no preference over non-officials. At the Chittoor and Kátpádi bungalows meals will be supplied if required; at the others, the traveller must make his own arrangements. No person is permitted to occupy a room for more than 24 hours if it is required by another traveller. The bungalows maintained by the Forest department are primarily intended for officers of that department, but other officials are allowed to use them if accommodation is available. No charge is made for these bungalows and no meals are supplied. The Public Works bungalows, when not in use by members of the Public Works department, are available free of charge for temporary accommodation of officers of other departments of corresponding grades to the Engineering and Subordinate establishments of the Public Works department. Permission to occupy the bungalows should, as a rule, be previously obtained from the Executive Engineer. When desirable the Superintending Engineer may allow a private individual to occupy a bungalow subject to a charge of 8 annas per diem or each portion of 24 hours. The bungalows have from one to three rooms. None are specially furnished as bedrooms. Meals are not provided.

Chatrams.

The district contains 130 chatrams for the accommodation of native travellers. Most of these are mere rest-houses situated at some convenient spot near a river or tank, which affords facilities for the preparation of meals, but in a few of them meals are provided free of charge. The so-called chatram at Arcot is in reality a langarkhána or poor-house. It was established by the Nawab of Arcot for providing food for orphans and destitute persons. It has an annual endowment from Government of Rs. 1,200 and 61 paupers are fed daily. The allowance to each person is a quarter of a measure, or 40 tolas weight, of rice. The lists appended to this chapter give particulars of the situation of the various bungalows and chatrams and the nature of the accommodation available.

List of Travellers' Bungalows in the District of North Arcot.

No.	Taluk.	Station.	Nature of accommodation.	Charge per diem.	By whom maintained.
1	Arcot	Dúsi tank	Tiled building; two rooms; chairs and a table ...	8 annas per diem *...	Public Works department.
2	Arcot	Kízhminnal ...	Thatched building containing three rooms, one bath-room, one kitchen and verandahs; furnished with a table and three chairs. Food can be obtained.	None	Forest department.
3	Arcot	Móranam	Thatched shed; one room and bath-room; furnished with a chair and table; out-houses and stable.	6 annas per diem for each adult and 8 annas for a married couple.	Local Fund department.
4	Arcot	Pálár anicut (south side).	Thatched building of one room; no furniture ...	8 annas per diem *...	Public Works department.
5	Arcot	Tiruvattúr	Terraced building; two rooms and two bath-rooms; furnished with tables, chairs, &c., and a stable.	12 annas per diem for each adult and 1 rupee for a married couple.	Local Fund department.
6	Chendragiri.	Chendragiri palace...	One large dining room with table and chairs, and a number of bed-rooms. Stabling.	8 annas per diem *...	Public Works department.
7	Chendragiri.	Dámalcheruvu ...	Tiled building with one room and two bath-rooms; furnished with a table and three chairs.	Same as No. 3 ...	Local Fund department.
8	Chendragiri.	Kallúru	Thatched building with one room and a bath-room.	None	Local Fund department.
9	Chendragiri.	Mámandúru ...	Thatched building with two bath-rooms and a kitchen; furnished with one bed, one table and one chair.	Do.	Forest department.
10	Chendragiri.	Nágapatla	Thatched building with two rooms and bath-rooms; furnished with two chairs and a table.	Do.	Forest department.

* Bungalows of the Public Works department are available for officers of other departments free of charge, but permission to occupy them should be obtained from the Executive Engineer. Private individuals should obtain the permission of the Superintending Engineer. For such travellers the charge is 8 annas a day. The Chendragiri palace, however, may be occupied without permission by any *Gazetted* officer of the district.

List of Travellers' Bungalows in the District of North Arcot—cont.

No.	Taluk.	Station.	Nature of accommodation.	Charge per diem.	By whom maintained.
11	Chendragiri —*cont.*	Panappákkam ...	Thatched building with three rooms and bath-rooms; kitchen, and stable for three horses; furniture none. Supplies rather difficult to get.	None	Forest department.
12	Chendragiri —*cont.*	Tirupati	Tiled building furnished with two chairs and a table.	Same as No. 5 ...	Local Fund department.
13	Chittoor ...	Chittoor	(1) Tiled building with two rooms and bath-rooms, fully furnished. Food can be obtained. A servant is kept.	Same as No. 5 ...	Local Fund department.
			(2) A tiled building, containing two rooms; furnished with two chairs and a table.	8 annas per diem *...	Public Works department.
14	Chittoor ...	Nangamangálam ...	Thatched building with three rooms and bath-rooms; kitchen and stables. Furniture consists of two chairs and a table.	None	Forest department.
15	Chittoor ...	Naraharipéta ...	Half of police station; one room and one bath-room; furnished with a chair, table and cot.	Same as No. 3 ...	Local Fund department.
16	Chittoor ...	Paradarámi ...	Thatched building with one room and two bath-rooms.	None	Forest department.
17	Chittoor ...	Pútalapattu ...	Thatched building with two rooms and bath-rooms; furnished with a table, two chairs and a cot.	Same as No. 3 ...	Local Fund department.
18	Chittoor ...	Venkatagiri ...	Half of police station; one room and one bath-room; furnished with a chair, table and cot.	Do. ...	Local Fund department.
19	Gudiyáttam ...	Gudiyáttam ...	Tiled building with three rooms and bath-rooms; furnished with tables, chairs and a bed; out-houses and stables.	Same as No. 3 ...	Local Fund department.

* Bungalows of the Public Works department are available for officers of other departments free of charge, but permission to occupy them should be obtained from the Executive Engineer. Private individuals should obtain the permission of the Superintending Engineer. For such travellers the charge is 8 annas a day.

List of Travellers' Bungalows in the District of North Arcot—cont.

No.	Taluk.	Station.	Nature of accommodation.	Charge per diem.	By whom maintained.
20	Gudiyáttam —cont.	Kátpádi	Tiled building with two rooms, dressing-rooms and bath-rooms; furnished with tables, chairs, beds and bath-room furniture. Food can be obtained on payment. Matey.	Same as No. 5 ...	Local Fund department.
21		Syriagunta	A small thatched building with one room and two bath-rooms; no furniture. Supplies hard to obtain.	None	Forest department.
22		Tiruvalam	(1) A small thatched hut	Do.	Forest department.
			(2) A terraced building with two rooms and bath-rooms furnished with a table, chair and a cot.	Same as No. 3 ...	Local Fund department.
23		Virinchipuram ...	A small thatched building with one room, two bath-rooms and a kitchen; furnished with one table and two chairs.	None	Forest department.
24	Kálahasti ...	Yérpéd	Thatched building with two rooms and bath-rooms; out-houses and stables.	Do.	Local Fund department.
25	Palmanér ...	Mórdana	A tiled building with three rooms, bath-rooms and a kitchen; no furniture.	Do.	Local Fund department.
26		Náyakkanéri ...	Two-roomed bungalow with bath-rooms, stables and a kitchen; no furniture.	Do.	Local Fund department.
27		Palmanér	A tiled building with two rooms; furnished with chairs, tables and a cot.	Same as No. 3 ...	Local Fund department.
28		Peddúru	A thatched building with two rooms and bath-rooms; no furniture.	None	Forest department.
29		Venkatagirikóta ...	Terraced building with two rooms and bath-rooms; furnished with chairs, tables and beds; out-houses and stables.	Same as No. 5 ...	Local Fund department.

Travellers' bungalows.

List of Travellers' Bungalows in the District of North Arcot—cont.

No.	Taluk.	Station.	Nature of accommodation.	Charge per diem.	By whom maintained.
30	Pólúr ...	Aliyábád Anicut ...	Thatched building with one room; no furniture ...	8 annas per diem *...	Public Works department.
31		Amerdi	Two-roomed thatched building with bath-rooms; no furniture; supplies very difficult to get.	None	Forest department.
32		Árani	(1) A tiled building with three rooms, &c.; furnished with chairs, tables and a bed.	Same as No. 5 ...	Local Fund department.
			(2) Tiled building with three rooms; furnished with chairs and a table.	8 annas per diem *...	Public Works department.
33		Bagmarpéta ...	A thatched building with three rooms, &c., furnished with one table and two chairs.	None	Forest department.
34		Elattúr	A thatched building with one room; furnished with one table and two chairs.	8 annas per diem *...	Public Works department.
35		Carnáticghur ...	A thatched building with two rooms and a bath-room; supplies not procurable nearer than 9 miles.	None	Forest department.
36		Múlakkádúr ...	One-roomed tiled building with no furniture ...	Do.	
37		Mundappárai ...	Two-roomed tiled building with bath-rooms, stables, &c.; supplies easily obtainable.	Do.	
38		Patrakádu ...	A thatched building with two rooms and a kitchen; no furniture; supplies hard to get.	Do.	
39		Pólúr	A tiled shed	Same as No. 3 ...	Local Fund department.
40		Santavásal ...	A thatched building with two rooms and no furniture.	None	Forest department.
41	Puttúr ...	Nagari	Terraced building (being half of police station) with one room and a bath-room.	Same as No. 3 ...	Local Fund department.

* Bungalows of the Public Works department are available for officers of other departments free of charge, but permission to occupy them should be obtained from the Executive Engineer. Private individuals should obtain the permission of the Superintending Engineer. For such travellers the charge is 8 annas a day.

List of Travellers' Bungalows in the District of North Arcot—cont.

No.	Taluk.	Station.	Nature of accommodation.	Charge per diem.	By whom maintained.
42	Puttúr—*cont.*	Puttúr	Terraced building with two rooms and bath-rooms; furnished with chairs and tables.	Same as No. 3 ...	Local Fund department.
43	Vellore ...	Ambúr	One-roomed tiled building with bath-rooms; furnished with a table and three chairs.	None	Forest department.
44		Náyakkanéri ...	A small one-roomed thatched hut; supplies not obtainable.	Do.	
45		Odugattúr ...	A small tiled building with one room and two bath-rooms; furnished with a table and three chairs.	Do.	
46		Pallikonda ...	Tiled building with one room and a bath-room; furnished with tables and chairs.	Same as No. 3 ...	Local Fund department.
47	Wálájápet ...	Arkonam	One-roomed thatched house with bath-rooms, &c.; furnished with one table and three chairs.	None	Forest department.
48		Bánavaram ...	A thatched house with one room, kitchen, stables, &c.; supplies obtainable.	Do.	
49		Kávéripákkam tank.	Thatched building, three rooms, two bath-rooms, three chairs and a table.	8 annas per diem* ...	Public Works department.
50		Pálár anicut (north).	Thatched building, three large rooms, two dressing-rooms and bath-rooms, three chairs and a table.	Do. ...	
51		Ponnai	Tiled building, two rooms, three chairs and a table...	Do. ...	
52		Ranipet	Do. do. do. ...	Do. ...	
53		Panappákkam ...	Do. do. do. ...	Do. ...	
54	Wandiwash.	Cheyár anicut ...	Thatched building, two rooms, three chairs and a table.	Do. ...	
55		Nedunkunam ...	One-roomed tiled building with kitchen, stables, &c.; no furniture; supplies obtainable.	None	Forest department.
56		Wandiwash ...	A tiled building (being half of police station) with one room and bath-room; furnished with tables, chairs and a bed.	Same as No. 5 ...	Local Fund department.

* Bungalows of the Public Works department are available for officers of other departments free of charge, but permission to occupy them should be obtained from the Executive Engineer. Private individuals should obtain the permission of the Superintending Engineer. For such travellers the charge is 8 annas a day.

List of Chatrams.

Taluk.	Village.	Name of chatram.	To what class of people is it open.	Whether meals are supplied gratis.	Number of days a traveller can obtain free meals.
Arcot	Arcot	Arcot Langarkhána	To all classes of people ...	Free distribution of rice.	Once a day.
Arni	Arni	Arunagiri chatram	All Hindus, except lowest castes.	No meals are supplied.	...
		Vániya do.	Do. ...		...
		Durgaprasád do.	Do. ...		...
		Arunagiri Mudaliár chatram.	Do. ...		...
		Muhammad Ghatálah Sáhib chatram.	For Musalmans only ...		...
	Sáliyavijayanagaram ...	Langari chatram	All Hindus, except lowest castes.		...
	Dévikápuram	Kaikólan do.	Do. ...		...
	Kastambádi	Jágírdár do.	Do. ...		...
		Visvanáda Mudali chatram ...	Do. ...		...
	Kámakkúr	Langari chatram ...	Do. ...		...
Chendragiri	Tirupati	Pungalúr Chinniah Chetti's chatram.	Bráhmans	Meals ...	Three days.
		Pungalúr Munisámi Chetti's chatram.	Do.	Do. ...	One meal in 15 days.
		Naraséshanna's chatram ...	All classes	No ...	...
		Hattirámji Matt Dharmasála ...	Bairágis	Meals ...	Three days.
	Tiruc'chánúr	Mádhva Sabha's chatram ...	Mádhva Bráhmans only ...	Meals are supplied free to Mádhva Bráhman travellers during the time of festival.	...
		Tondamma chatram	Do. ...	Do. ...	...

List of Chatrams—cont.

Taluk.	Village.	Name of chatram.	To what class of people is it open.	Whether meals are supplied gratis.	Number of days a traveller can obtain free meals.
Chendragiri—*cont.* ...	Tiruc'chánúr—*cont.*	Venkata Narasimhulu's chatram.	Bráhmans	No ...	...
	Tirumalai	Mysore Mahárája	Do.	Meals ...	Every day to pilgrims only.
		Dévastánam chatram ...	Bairágis	Do. ...	Three days.
	Rénigunta ...	Álanguppam Ráma Rao's chatram.	Mádhva Bráhmans ...	Do. ...	Every day to pilgrims only.
		Appákkutti Pillai's chatram ...	All classes of people ...	No ...	...
		Nádamuni Náyudu chatram ...	Do. ...	No ...	...
	Aiyattapalli	Singara Aiyangár's chatram ...	Bráhmans	Meals ...	One day.
Chittoor	Pútalapattu	(1) Séniya's chatram	Bráhmans	No ...	...
		(2) Do.	Súdras	No ...	...
	Rangampéta	Kómatis' chatram	Bráhmans and Chettis ...	No ...	...
	Páttúr	Travellers' do.	Do. ...	No ...	...
	Kottakóta	(1) Bhíma Rao's chatram ...	Bráhmans	No ...	...
		(2) Do.	Súdras	No ...	...
	Sanjívaráyunipalli	Reddi chatram	All classes	No ...	...
	Venkatagiri	......	All Hindus	Yes ...	One day.
	Kanippákkam	Road-side chatram	Do.	No ...	...

List of Chatrams—cont.

Taluk.	Village.	Name of chatram.	To what class of people is it open.	Whether meals are supplied gratis.	Number of days a traveller can obtain free meals.
Chittoor—*cont.* ...	Græmspet	Dúsi Rámaiya chatram ...	Súdras	No ...	...
		Sáliya Gáru chatram	Do.	No ...	...
		Jangamkóta Sankara Rao's choultry.	Do	No ...	...
		Venganna's choultry	Súdras and Bráhmans ...	Yes ...	Once or twice.
	Mangasamudram ...	Nattalla Kuppi Chetti ...	Súdras	No ...	...
		Venkataramanasámi Chetti ...	Bráhmans and Súdras ...	No ...	...
	Paradarámi	Sámi Chetti	Do. ...	No ...	...
	Chittoor	Bhíma Rao's choultry	Do. ...	No ...	...
		Márappa chatram	Súdras	No ...	...
		Linga Chetti chatram ...	Bráhmans and Súdras ...	No ...	...
		Kotta Rámasámi Chetti chatram	Do. ...	No ...	...
		Guruvappa Náyudu chatram ...	Do. ...	No ...	...
	Kattamanchi	Chidambara Rao's choultry ...	Do. ...	No ...	...
Gudiyáttam	Gudiyáttam	Tirupati Chetti choultry ...	Súdras	No ...	...
		Bangáru Chetti's choultry ...	Bráhmans	No ...	...
		Bódipet choultry	Súdras	No ...	...
		Daranampet choultry	Do.	No ...	...
	Tiruvalam	Subramaniya Iyer's choultries (four)	One for Bráhmans and three for Súdras.	No ...	...
	Kángayanellúr	Gópáláchári's choultry ...	Bráhmans	No ...	...
	Chenji	J. Venkatráma Reddi's choultry.	Do.	No ...	...
	Dhárápadavédu ...	Mínáboy's choultry (one) ...	Bráhmans and Súdras ...	No ...	...
		Kandasámi Mudaliár's choultry.	Do. ...	No ...	...

List of Chatrams—cont.

Taluk.	Village.	Name of chatram.	To what class of people is it open.	Whether meals are supplied gratis.	Number of days a traveller can obtain free meals.
Gudiyáttam—*cont.* ...	Pazhayakrishnápuram ...	Gurivi Chetti choultry ...	Súdras	No ...	...
	Kallappádi	Sankunanda choultry ...	Do.	No	...
	Talaiyáttam	Muhammad Ismail Sáhib's choultry.	Musalmans	No ...	...
	Értángal	Rotti Basavappa Chetti's choultry.	Súdras	No ...	...
	Péranambattu ...	Lálápet choultry	Musalmans	No ...	...
		Péranambattu choultry ...	Do.	No ...	...
	Sánánkuppam	Múrti Mudali's choultry ...	Súdras	No ...	...
	Kailásagiri	Kosavan Aiyásámi Chetti's choultry.	Súdras and Musalmans ...	No ...	...
	Mélvíttinánkuppam ...	Murugésa Mudali's choultry ...	Do. ...	No ...	...
Kálahasti	Kálahasti	Kálahasti Zemindár's chatram.	Bráhmans	Yes ...	One meal per diem.
		Murári Venkatasubbayya chatram.	Do.	Yes ...	Meals for 12 Bráhmans are provided at night.
		Pushpagiri Sankarácháryu'a Swámulavári chatram.	Do.	Yes ...	One meal to each Bráhman up to a maximum of 5.

List of Chatrams—cont.

Taluk.	Village.	Name of chatram.	To what class of people is it open.	Whether meals are supplied gratis.	Number of days a traveller can obtain free meals.
Kangundi	Kuppam	Kangundi Zemindár's Dharma chatram.	All classes of people	Yes	Three meals allowed free. Meals exceeding this number are allowed with the zemindar's special sanction.
Mádarpák	Árambákkam	Sáyamma's chatram	All travellers	No	...
	Timma Náyudupéta	Béri Chetti's do.	Do.	No	...
	Surattapalli	Ráma Rághaviah's chatram	Bráhmans	Meals for Bráhmans.	One.
	Pennálúr	Chenchu Náyudu's do.	All travellers	No	...
Palmanér	Palmanér	(1) Local Fund choultry	All classes	No	...
		(2) Metukuvándla chatram	Do.	No	...
		(3) Venkarámanna do.	Do.	No	...
	Baireddipalli	Dharma chatram	All classes except Pariahs	No	...
	Lakkanapalli	Do.	Do.	No	...
	Meramúru	Do.	Do.	No	...
	Pattikonda	Do.	Do.	No	...
	Venkatagirikóta	Rághaviah chatram	Do.	No	...
	Náyakkanéri	Arunáchala Mudaliár	Do.	No	...
Pólúr	Pólúr	Appávu Chetti's chatram	......	No meals are supplied.	...
	Séttuppattu	Rághava Chetti's do.	Bráhmans		...
	Santavásal	Vániyan chatram	Non-Bráhmans		...
	Padavéd	Temple do.	Do.		...

List of Chatrams—cont.

Taluk.	Village.	Name of chatram.	To what class of people is it open.	Whether meals are supplied gratis.	Number of days a traveller can obtain free meals.
Punganúr	Punganúr	Kávéri chatram	Bráhmans	Yes ...	Three days.
	Ráyalpéta	Súdam Chetti chatram ...	Bráhmans and Súdras ...	No ...	...
	Buragamantu	Reddis' chatram	Do. ...	No ...	...
Puttúr	Puttúr	Srínivása Pillai's chatram ...	Bairágis	Sadávarti ...	Three days.
		Do. ...	Bráhmans	No ...	...
	Nagari	Bandi Venkatésa Náyudu's chatram.	Hindus	No ...	...
		Poligar Chenganna Náyudu's chatram.	Do.	No ...	...
	Vadamalapéta	Kolla Kannaya Chetti's chatram.	Do.	No ...	...
	Ráyalcheruvu	Subbaráya Davjee's chatram ...	Do.	Meals for Bráhmans and sadávarti for other class of people.	Three days.
Tiruttani	Tiruttani ...	Náttukkóttai chatrám	Bráhmans	Meals ...	Three meals.
		Vináyaga Subbakailása Mudali chatram.	Bairágis	Sadávarti ...	One meal.
		Sómi Chetti chatram	Do.	Sadávarti for 12 persons a day.	Do.
	Rámakrishna Rájupéta ...	Osúrpalli Subbá Reddi's chatram.	Bairágis and Bráhmans ...	Sadávarti for 5 or 6 persons a day.	One meal.
	Áttimanjéripéta	Kárvétinagaram Rájá's chatram.	Bráhmans	Meals and sadávarti.	One day.

List of Chatrams—cont.

Taluk.	Village.	Name of chatram.	To what class of people is it open.	Whether meals are supplied gratis.	Number of days a traveller can obtain free meals.
Vellore	Sattuváchári ...	(1) Bháshika Náyudu chatram.	Hindus	No ...	...
		(2) Sámi Mudali chatram ...	Do.	No ...	...
	Mélmanavúr	Chetti chatram	Do.	Yes ...	On Dwádasi days.
	Konavattam	Séturanga Mudali chatram ...	Do.	No ...	...
	Virinchipuram	Gópál Rao chatram	Do.	Yes ...	On Dwádasi days.
	Arukandampúndi	Kandi Rájá chatram ...	Do.	Yes ...	Do.
	Kaniyambádi	Chetti chatram	Do.	No ...	...
	Tóttálam	Sítáráma Mudali chatram ...	Do.	No ...	...
	Vettuvánam	Náráyana Chetti chatram ...	Do.	No ...	...
	Pallikonda	Ananta Rao chatram ...	Do.	No ...	...
	Vellore	Langarkhána	Hindus, Musalmans and Christians fed up to a maximum of 400 persons. Present strength 345.	Uncooked rice ($\frac{3}{16}$ of a measure) is supplied free to each pauper.	Daily.
Wálájápet	Kondapálaiyam	Sholinghur Rayaji Annadhána chatram.	To Bráhman pilgrims who resort to temples upon the adjacent hills.	Yes ...	Three days.
	Arkonam	Arkonam Local Fund choultry.	Musalmans and Hindus except Pariahs.	No ...	...
	Assanallipéta	Assanallipéta choultry ...	Caste Hindus only	No ...	...

List of Chatrams—cont.

Taluk.	Village.	Name of chatram.	To what class of people is it open.	Whether meals are supplied gratis.	Number of days a traveller can obtain free meals.
Wálájápet—*cont.* ...	Sholinghur	Sholinghur Annadhána chatram.	Bráhmans	Meals ...	Two days.
	Nemali	Nemali chatram	Hindus	No ...	...
	Tirumálpúr	Tirumálpúr chatram	Do.	No ...	...
	Arigalavádi	Arigalavádi chatram	Do.	No ...	...
	Panappákkam	Panappákkam chatram ...	Do.	No ...	...
Wandiwash	Wandiwash	Sadásiva Rao's chatram ...	All Hindus except Pariahs ...	No ...	...
		Krishna Rao's do. ...	Bráhmans	No ...	...
	Nedunkunam	Local Fund chatram ...	All Hindus except Pariahs ...	No ...	...
	Tétturai	Do. ...	Do. ..	No ...	...
	Tennángúr	Do. ...	Do. ...	No ...	...
	Sengádu	Private chatram ...	Do. ...	No ...	...
	Tellár	Do. ...	Do. ...	No ...	...
	Sálavédu	Local Fund chatram ...	Do. ...	No ...	...

CHAPTER VIII.

OCCUPATIONS AND TRADE.

CHAP. VIII. OCCUPATIONS.

Agriculture.

IN every district of the Madras Presidency agriculture is by far the most important occupation, and it will be seen from the marginal statistics, compiled from the census tables of 1891, that a somewhat larger proportion of the population are dependent upon it in North Arcot than in most districts. The total number of persons whose chief means of subsistence is pasture or agriculture is 1,522,551, and there are also a number of persons who possess an interest in land in addition to some other calling. Moreover, it is probable that many of the 100,000 people who returned their occupation as general labour are employed on agricultural operations for at least part of the year. Of the 1,522,551 persons shown under pasture and agriculture, 51,416 are dependent on the former. Of these 24,698 are herdsmen and 20,925 are shepherds; many of them are children employed in tending cattle, sheep and goats. Of the 1,471,135 individuals who appear in the tables as depending on agriculture for their livelihood, rather more than half are working farmers, possessing some kind of property in their land. The majority of these and of the 185,000 landowners who do not farm their own lands are ryots

Class.	Percentage.	
	North Arcot.	Madras Presidency.
A.—Government ...	2·30	2·56
B.—Pasture and agriculture.	69·84	61·39
C.—Personal services ...	2·67	2·99
D.—Preparation and supply of material substances.	14·37	18·64
E.—Commerce, transport and storage.	1·92	2·47
F.—Professions	1·39	2·03
G.—Indefinite occupations.	7·51	9·92
TOTAL ...	100·00	100·00

Land occupants (not cultivating).	185,178
Land occupants (cultivating).	767,861
Tenants (cultivating) ...	280,801
Farm-servants	53,852
Field labourers	170,052

[1] The census statistics of occupation include not only those who actually exercise a calling, but also those dependent upon it for their means of subsistence. Thus in a household consisting of a vakil, his wife and three children, all five will appear as vakils and not the head of the house only as in 1881. The change of system prevents any but the most general comparison between the returns of 1881 and 1891. (See *Census Report*, chapter XI.)

holding Government land on *pattá*, while the 281,000 cultivating tenants are chiefly zemindári ryots. Many of these have the same rights in their holdings as the ryotwári pattádárs, so that the number of persons having some sort of property in land is well over a million. Agricultural labourers are relatively few: the ratio is 2 labourers to 11 farmers, and this low proportion shows the great extent to which peasant proprietorship prevails. About one quarter of the agricultural labourers are farm-servants who are employed throughout the year; the rest are engaged for special work only, such as transplanting and harvesting, or, if employed longer, serve for monthly wages and can be dispensed with when work is slack. As already stated, some at least of the general labourers are also employed on agriculture when a demand arises.

An account of the agricultural methods followed in North Arcot will be found in the first volume.

Weaving.

Next to agriculture, but *longo intervallo*, the most important occupation is weaving with its kindred industries of spinning and dyeing. The total number of persons returned as subsisting by the preparation and sale of wool, silk, cotton, jute, flax and coir is 73,333, and of this number 65,563 appear under the head of cotton weavers. The return is probably defective in the case of some of the smaller industries included in this group, for when the entry in the schedule was simply weaver, it was taken to be a cotton weaver, though many, no doubt, were weavers of carpets, blankets and silk fabrics. Again, the women of many castes add a little to the family income by spinning, but these have evidently not been shown under that head; and, rightly so, for spinning is not their chief means of subsistence. The strength of the weaving and dyeing castes in the district (including cotton-cleaning castes, but excluding the Kurumbas) is 71,716, which is rather less than the

——	Total.	Males.	Females.
Carpet weavers and sellers.	3	1	2
Blanket weavers and sellers.	930	372	558
Woollen yarn spinners and sellers.	26	7	19
Silk carders and spinners.	261	71	190
Silk weavers and dealers.	1,255	639	616
Silk printers and dyers ...	12	6	6
Braid and ribbon makers and sellers.	75	36	39
Cotton cleaners, pressers and ginners.	326	139	187
Cotton carpet and rug makers and sellers.	19	11	8
Cotton spinners ...	1,757	305	1,452
Cotton weavers	65,563	36,144	29,419
Calenderers, fullers and printers.	59	28	31
Cotton dyers	1,196	583	613
Cotton yarn and thread sellers.	312	156	156
Jute, flax and coir preparers.	1,539	774	765
TOTAL ...	73,333	39,272	34,061

CHAP. VIII. OCCUPATIONS. Weaving.

number of persons who live by weaving, dyeing, &c. It may be concluded with a fair amount of confidence that weavers have not been driven to other occupations, as is so often alleged, by the competition of Manchester goods. The Kaikólans are the most numerous of the weaving castes and produce only the common cotton cloths worn by the people. The Sáliyas and Séniyas interweave silk, while the Patnúlkárs make fabric entirely of silk. The Jándras of Mádarpák produce parti-coloured cotton handkerchiefs.

The process of weaving is very simple. English thread is almost entirely used; it is bought in Madras, and is chiefly white thread, though coloured threads are also purchased. A few dyes the weavers themselves are able to apply. The thread is first turned off upon a hand spindle (rátnam) and then the warp is formed. Bamboo sticks, 120 in number, are fixed upright in the ground, generally in the shade of a tope or grove, at a distance of a cubit from one another, and ten women or children, carrying rátnams in their hands, walk up and down this line, one behind the other, intertwining the thread between the bamboos, until 1,920 threads of various colours, according to the pattern desired, are thus arranged. For this work each gets half an anna—a small remuneration for walking four miles. To form a warp sufficient for eight women's cloths 40 miles have thus to be traversed. In weaving silk cloths or the finer fabrics, the length of the warp is less than 60 yards.

As soon as the threads have been arranged, the bamboos are plucked up and rolled together with the threads upon them. Trestles are then set out in the tope and upon them the warp with the bamboos is stretched horizontally and sized by means of large long brushes soaked with rági starch and carried along by two men. This having dried, the whole is rolled up and placed in the loom in the weaver's house. The weaving-room is a long, narrow, dark chamber, lighted by one small window close to where the workman sits. The loom is constructed on the simplest principles, and can be taken to pieces in a few minutes, forming a light load for a man. The alternate threads of the warp are raised and depressed to receive the woof in the following manner. Two pairs of bamboos are joined together by thin twine loops, and, being suspended from the roof, are also joined to two pedals near the floor. Through the joining loops of one pair of bamboos run half the threads, and through those of the other run the other half; thus by depressing one pedal with the foot and raising the other, one set of threads is depressed and the other raised so as to admit of the woof thread spool being shot across. This thread is forced home by a light beam suspended from the roof and then, the position of the pedals being reversed, the woof thread is shot back again between

CHAP. VIII OCCUPATIONS — Weaving.

the reversed threads of the warp. In this way about three yards can be woven in a day and the whole 60 yards in three weeks. The profits are small, a cooly weaver receiving 8 annas for making an ordinary woman's cloth 8 yards long. For the finer sorts, which take longer, the wage is higher, but never more than 3 annas a day. Cotton cloths for women sell for from Rs. 1-12-0 to Rs. 4. Those containing a little silk fetch from Rs. 4-8-0 to Rs. 6-8-0, but the Sáles and Séniyas who weave them do not earn more than their Kaikólar brethren, and the Jándras of Mádarpák are in about the same condition. These used formerly to make the ordinary pink and white square handkerchiefs, used chiefly by Musalmans, but gaudy patterns have been supplied them for many years, perhaps first by the East India Company, though the trade is now in the hands of a few large native firms in Madras, who make advances and receive cloths in payment. These cloths are of three sorts—

(1) Tella billa sápulu: containing 8 squares 3′ × 3′ each, pattern red and white; value from Rs. 3 to Rs. 5 and exported to Singapore, Penang and Colombo.

(2) Battáy taram: 8 squares 32″ × 32″, pattern red and white, centre with blue and green borders; value Rs. 2 to Rs. 4 and exported to Singapore and Penang.

(3) Patta márpu sápulu (Madras handkerchiefs): 8 squares of 3′ each: containing a brilliant mixture of red, yellow, blue, green and purple.

These are exported to London, whence they are said to go to France, the West Indies, America, Arabia and Africa. The American negroes are intensely fond of them as turban cloths, and Madras handkerchiefs are often referred to in *Uncle Tom's Cabin* and other similar works as part of the head adornment of a negro slave. In Singapore and Penang the natives use them as under-garments, and in France and America, the Madras merchants assert, ladies make fancy dresses of them.

The Patnúlkár silk-weavers buy all their silk in Madras, as it is not now produced in the district. They prepare the warp and weave in the way already described, but they generally prepare a separate warp for each woman's cloth. One viss of silk, costing Rs. 18, is required for this; dyeing it costs Rs. 2, arranging it Rs. 3, and as the silk loses a third of its weight in the cleaning, and the cloth sells at one rupee a pallam for the remaining 26 pallams, only Rs. 3 is left as wages for fifteen days' weaving, or 3 annas a day as in the case of other weaving castes. The wasted silk, however, is sometimes cunningly worked up with the good, and is always used in twisting the waist threads (arainánkayir, molatédu) worn by men. This slightly enhances the weaver's profits.

CHAP. VIII. OCCUPATIONS. Dyeing.

Dyeing is chiefly practised with silk, the colours produced being fast and really brilliant. The processes are as follows:

The raw silk (kórá paṭṭu) is, when bought, of a yellow colour. After being arranged for the warp, it is boiled for three hours in water containing soap or fullers' earth, which bleaches it to a pure white. During this process one-third of the silk is wasted. The following colours are then applied: where quantities are stated, they are those required to dye 2 viss of raw silk:

Dark blue (nalla, Telugu; karuppu, Tamil).—The white silk is soaked in indigo.

Scarlet (yerra, Telugu; sigappu, Tamil).—The silk is soaked for six hours in water containing one maund of jungle lac (kombarakku) and half a viss each of turmeric and alum.

Copper brown.—The red silk is soaked in indigo or the dark blue silk is boiled in water containing three-quarter maund of jungle lac and quarter viss each of alum and turmeric. The latter mode is preferred.

Dark violet or mauve (mégavarnam).—The dark blue silk is boiled in water containing chunam and fullers' earth.

Orange (kapila varnam).—White silk is soaked for two or three days in water containing 1½ viss of kapila powder (a dragon's blood coloured powder, which is sold by the Malayálies) and half a maund of fullers' earth.

Golden (nemali varnam).—White silk is soaked for five days in water containing half a maund of turmeric and also some fullers' earth.

Crimson (kariminji).—For this colour are used the dried bodies of small insects (cochineal) called kiriminji, imported from Hyderabad, where they are said to feed on the prickly-pear. They are very expensive, costing Rs. 8 per viss; for 2 viss of silk 1½ viss of kiriminji is used. White silk is boiled with this in water on two days for three hours in each day.

Olive green.—Dark blue silk is boiled in water containing alum, turmeric and fullers' earth.

Cotton cloths are also extensively dyed by the Rangáris in Wálájápet. The ordinary colours are black, red and yellow. The cloth is first soaked in water containing a sort of fullers' earth, called buggácháram, and oil in equal quantities. The mixture is milky in appearance and in it the material is soaked and dried over and over again during eight days. On the ninth day it is dipped into water containing milk and powdered gall-nuts (karakkáya pindi or flour of *Terminalia chebula* nuts) and then dried, when it is found to have assumed a greenish hue and to have become stiff.

CHAP. VIII. Occupations.

Dyeing.

To render it pliable, it is beaten upon a stone with a mallet and is then ready to take the dye. The red colour is produced from splinters of the wood of a tree called virathungi, which are ground into a powder and boiled in a pot. Then alum and gum are added and the dye is ready. For the black dye, sulphate of iron (annabhédi), gum and the seeds of the marking-nut (*Semecarpus anarcardium*) are mixed with water. Yellow is produced from turmeric. These colours are often printed upon cloth, yellow and red being applied by means of carved wooden blocks and the black upon engraved copper plates. In this way patterns of birds, flowers, &c., are cleverly applied. After being coloured the cloths are washed in a tank or river, and then boiled for five hours in a large copper vessel containing water, with four maunds of the root of the nuna tree, one maund of the root of the pobbáku tree and about 1½ viss of oil. The cloths are gently stirred to prevent scorching, and the boiling is repeated a second time after the cloth has been dried. They are then washed and left to soak for one night in a mixture of sheep's dung and water, after which they are washed and dried several times during three days, and finally starched in conjee water.

A Rangári usually dyes about 300 yards at a time, and the process occupies twenty days, the value of the dyed cloth being about Rs. 90, His expenses are—

	RS.	A.	P.
300 yards of cloth	48	0	0
Oil	2	0	0
Nuna root	15	0	0
Pobbacháram root	0	8	0
Gall-nuts	1	0	0
Fullers' earth, gall-nuts and milk	0	8	0
Firewood	1	8	0
TOTAL ..	68	8	0

He thus gets a profit of Rs. 21–8–0, but out of this he has to spend some Rs. 8 or Rs. 10 upon coolies to assist him in the various washings and boilings.

Weavers often dye their own cotton thread a dark blue colour thus :—Equal quantities of chunam, paddy-husk and fullers' earth are put into a pot having a small hole in the bottom. This is placed over an empty pot, and water being poured over the materials, drains through the hole in three days. A viss of indigo is next mixed with water in a large pot (kadavà) and in a smaller one some seeds of the thagar plant are boiled and the decoction added to the indigo. To this the lime water is also added, and the mixture is allowed to stand for four or five days, being gently

CHAP. VIII. OCCUPATIONS.

Dyeing.

stirred now and then. It ferments and finally assumes a sort of copper colour, when it is ready to receive the thread, or cloth, which is dipped into it twice a day for five days. Ten boxes of thread weighing 15 viss can be thus dyed for Rs. 20. The indigo costs Rs. 15 and the thagara seed Rs. 1–8–0, leaving a profit of Rs. 3–8–0 for a month's labour. By using more than one kadava, a man who devotes himself to dyeing for weavers, of course, increases his income.

Thread is dyed red in the following way. A quantity of milk-hedge, burned to ashes and added to water with half a viss each of sheep's dung and gingelly oil, produces dye enough for one box of thread, from which three women's cloths can be woven. During twenty days the thread is dipped in the red dye and dried over and over again. It is next twice dipped in a decoction of alli (*Memecylon tinctorium*) leaves, being dried between the dippings and finally steeped in a mixture of water and sirinji (*Lythrum fruticosum*) bark powdered.

Carpets.

In Wálájápet a few silk carpets are made in the colours already mentioned as being applied to silk. The thread is twisted five times as thick as for cloth weaving, and a carpet weighing a maund fetches Rs. 300. The cost is—

	RS.
Silk, one maund	150
Dyeing	50
TOTAL ..	200

The time occupied is about four months, and usually four or five assistants have to be paid Rs. 50 or Rs. 60 for the four months, leaving a profit of only Rs. 40 or Rs. 50.

Excluding the Vellore Jail, woollen carpets are only made to any extent in Wálájápet, and there generally of a poor quality, though better and cheaper than those of Bangalore. The very best can, however, be made if ordered. The wool has to be got from as far as Gudiyáttam or Palmanér, where the Kurumbas sell it. It is first carded and spun into a thick thread and then dyed various colours. Some of the processes described for silk are also applied to wool. The carpet loom is arranged perpendicularly. The warp is of twine and the woof of wool. To the twine are tied small pieces of coloured wool between each thread of the woof and are cut with scissors so as to present an even surface. The expenses of working are—

	RS.	A.	P.
One maund of wool	1	12	0
Carriage	1	12	0
Dyeing	1	0	0
TOTAL ..	4	8	0

This produces, after two or three days' work, a carpet 6′ × 3′ worth from Rs. 5 to Rs. 6.

Carpets.

Tent carpets and jamkánas are also made in Wálájápet, both in horizontal and perpendicular looms. They are made of thick country cotton thread, imported from Bellary and Salem. The usual size of jamkánas is 2 yards by 1 yard, selling for Rs. 2–4–0 each. Twenty of these can be woven in a month by one loom at the following cost:

	RS.
25 viss thread	30
Dyeing blue and red	5
TOTAL ..	35

leaving a profit of Rs. 10, out of which probably an assistant for part of the time has to be paid.

Blankets.

Blankets or cumblies are made only on the plateau and in parts of Gudiyáttam and Chittoor. The wool of thirty or forty kurumba sheep at a shearing yields about 26 seers, sold for a rupee, and enough to make eight pieces, two pieces being stitched together to make an ordinary cumbly worth a rupee or a rupee and-a-quarter. The warp is sized with tamarind seed starch and the loom set up on the ground, the workman sitting in a pit dug out for the purpose. His earnings do not exceed 2 or 2½ annas a day.

Workers in metal, wood and stone.

The manufacture of articles from metal, wood and stone is almost entirely confined to the five castes which are known collectively as Kammálan or Pánchála, while they sometimes arrogate to themselves the title of Visvakarma or Visva Bráhmana. These five artisan castes are the goldsmiths, the brass and copper workers, the blacksmiths, the carpenters and the masons. Goldsmiths number 14,690, workers in brass, copper and bell-metal 3,043, blacksmiths 8,017, carpenters 14,088 and stone masons 7,524. To the last should perhaps be added the 1,974 persons who appear in the tables as builders of mud walls and roofs. The goldsmiths make the ordinary ornaments of the people, but there is no special work of this kind peculiar to North Arcot. The brass and copper industry is carried on chiefly in Vellore and Tirupati.

Brass work.

This industry is chiefly carried on in Vellore and Tirupati. The commonest articles produced are brazen water-pots. These are made of thick sheet brass bought in Madras. Each pot is made in three pieces: a circular portion is cut from the sheet for the bottom and two rectangular pieces for the middle and mouth. These are heated and hammered into shape upon an anvil, and when properly fitted are soldered with *veligáram* (borax and bell-metal), the seams being finally filed out and the pot smoothed

CHAP. VIII. OCCUPATIONS.

Brass work.

and ornamented with lines in a lathe. The workmen (Kammálas) generally work on advances, receiving Rs. 4-8-0 for a maund of metal used. Out of this they pay for charcoal, solder and wastage of brass about Rs. 2, and therefore earn in a week, the time occupied in working a maund, about Rs. 2-8-0, or 6 annas a day. The trader sells the pots in his shop, or sends them in a cart to be hawked about the villages at about Rs. 16 a maund.

Out of thinner brass ornamental plates are made in both Tirupati and Vellore. The sheet is cut and hammered into shape upon moulds. A device is next traced upon it in ink and the lines cut with chisels or punches. In Vellore the plates are often perforated, and at Tirupati small pieces of silver and copper are inlaid. The profits are about 6 annas a day, the price of the Tirupati ware being Rs. 1-12-0 per seer, *plus* the value of silver inlaid. At Tirupati vases, &c., are also engraved and inlaid, the vessels being in that case not hammered but cast. A model of the interior of the vessel is first formed of clay and is covered with wax to the thickness intended for the brass. Clay, taken from a white-ants' nest, is then carefully powdered and laid over the wax, and, finally, a coat of coarse clay is added. When it has dried, a small hole is bored, reaching to the wax, which, being melted over a fire, is poured out. The mould is then heated in a furnace, and, while hot, molten brass is poured in, filling the space lately occupied by the wax. After being turned in a lathe, the vessel is filled with lead and engraved with chisels and punches.

Idols are cast in the same manner. A sástram describes the proportions of each limb of the various idols and the auspicious days for moulding them. On these days the waxen images are made and, being corrected in subsequent days, are covered with clay as already described. The usual mixture used is one maund copper, half viss lead, and 1½ viss tin, but gold and silver are sometimes added to order. The prices of idols (which make excellent paper-weights) are—

	RS.	A.	P.	
Cast in brass	0	6	6	per seer.
Cast in copper	1	4	0	„
Cast in copper and ornamented with brass	1	12	0	„

The profits of this work amount to about 8 annas a day.

Wood-carving.

Some good wood-carving is done in Tirupati and the neighbourhood. The wood used is red-sanders (*Pterocarpus marsupium*, Telugu *yegi* and Tamil *véngai*). Plates, cups, bowls, &c., are made of this and can be bought for a small sum. The best carving is reserved for idols of the Hindu gods, and these, when elaborate, are somewhat expensive.

Carts, toys.

Toys are made in Vellore out of a very light white wood called véppálai (*Wrightia antidysenterica*). This is turned into the shape of cups, bottles, goglets, toy locomotives, balls, &c., and while revolving in the lathe sticks of various coloured lacs are applied to the surface. The heat of friction melts the lac and causes it to adhere to the wood with a polished surface. These toys are very cheap and admirably adapted for children, as the colour does not come off. They are sold chiefly at the Arkonam and Kátpádi (formerly Vellore) railway stations. The census tables show 60 turners and lacquerers and 46 toy-makers.

Glass bangles.

The manufacture of glass is confined to a few villages in the Kálahasti zemindári, where the saline efflorescence of the soil called '*soudu man*' is very plentiful. It is collected generally in February and March and placed in pots containing about six Madras measures each. Sixty of these are built into a large clay furnace and baked for some time until the contents have been fused into a white glass called 'gázu rái.' The soil mixed with the soda is found to supply the necessary amount of quartz. The 'gázu rái' is powdered and mixed with various substances to give it colour: thus a blue powder, said to be brought from Benares, produces blue glass (nílam rái), copper filings make it green (pac'cha rái), a black stone (nalla rái), obtained from Conjeeveram, produces a blue red (údá rái), and another stone (chembadi rái), from the same place, turns it to a reddish hue (sonné rái). The coloured glass is again broken, fused once more, and bent with an iron style into the shape of bangles. Bangles are made elsewhere than at Kálahasti, from whence, however, the glass is alone obtained at the following prices:

Blue	Rs. 20	per kandy.
Green	,, 16	do.
Blue red	,, 14	do.
Red	,, 16	do.

Bangles are sold at from annas 2 to annas 5 per *gutti* of 500 and are very largely exported from the district. The trade is in the hands of the Balija caste, who also make bangles of lac well mixed with powdered clay. This mixture is warmed and cut into strips which are moulded upon a circular stick held over a charcoal fire. Gold-leaf, coloured glass, tinsel, &c., are fastened upon them while still heated. Such bangles are sold for from 6 pies to 2 annas per bundle of nine. The number of persons subsisting by the manufacture of bangles is 4,419.

Pottery.

There are 12,569 potters. The ordinary pottery of the country is produced in every village and needs no description, but at Karigeri, in the Gudiyáttam taluk, a superior quality is produced

CHAP. VIII. OCCUPATIONS. Pottery.

by one family. It is made of a sort of pipe-clay powdered, mixed with water, and strained through a coarse cumbly. When dry it is again ground, moistened and fashioned upon the ordinary wheel. After being dried for ten days in the shade and for two days in the sun the vessels are baked for twelve hours, being placed in an earthenware closed oven which is covered with fire built over with clay. After being baked they are glazed. Equal parts of zangála pac'che (verdigris) and bangle earth (*soudu man*) are fused in a furnace until they form a green glaze. This being powdered and mixed with water is painted over the vessels, which are then dried in the sun and baked as before. If the baking has been properly regulated, a rich green glazed surface is the result. If half a part of white-lead be added to the verdigris and bangle earth, a yellow glaze is produced. In either case when the baking has been too prolonged, the glaze assumes a blackish red colour. The articles produced at Karigeri are much admired both in India and England. Goglets, butter dishes, flower-pots, in fact any shape desired, are turned out at various prices. As the manufacture is a monopoly, they are high, a glazed goglet costing about a rupee and a half and other things in proportion. They are unfortunately very brittle.

Paper.

A little paper is now made in the district in Lálápet and a few other villages, but not many years ago it was extensively produced, one village near Vellore called Káyidapatteda being the chief seat of the industry. It is made from worn-out gunny bags, which are cut to pieces and washed. The rags are then soaked in chunam and water for twenty-four hours and again washed. This is repeated four or five times, and finally the rags are beaten into a pulp with mallets. The pulp being put into a tub of clean water is well stirred and allowed to settle, after which the water is poured off. The implements next used are a flat board and a frame of wood, across which thin and parallel strips of rush are fastened. The frame being dipped into the pulp brings away a portion of it adhering to the rushes. This is transferred to the board, which is tilted from side to side until the pulp lies evenly, and then the water is allowed to drain off, and the board being turned over upon a smooth chunam platform, leaves the sheet of paper lying moist upon it. Other sheets are made in the same way and placed one upon the other, for they do not adhere though still moist. When all the pulp is used, the pile of sheets is pressed between boards and then each sheet is dried separately upon strings. They now form very fair blotting paper, but for writing purposes are dipped in rice conjee, dried and polished with smooth stones. The census statistics show only 23 paper-makers.

Oil-pressing.

Oil-pressers and sellers number just over 10,000. This manufacture is altogether in the hands of the Vániyas and Gándlas, and

is extensively carried on all over the district. The seeds from which oil is usually expressed are gingelly and ground-nut. The latter oil is only used for lamps. The mill is formed of a portion of the trunk of a large tree planted on the ground and hollowed out into the form of a large mortar. In this a big pole works as a pestle round and round, being drawn by one or two bullocks yoked to a projecting spur. Above the gháts the mortar is sometimes made of granite. To eight measures of the seed one-eighth of a measure of water is added when beginning work, and half the amount for every separate charge of eight measures. To improve gingelly oil sometimes jaggery, lime juice and cocoanut milk are also added with the water.

CHAP. VIII. OCCUPATIONS. — Oil-pressing.

The mill costs about Rs. 55 and a pair of good bullocks about Rs. 80. With this stock the mill may be worked early and late, pressing in a month 1,500 measures, or about 5,000 lbs. of gingelly seed, worth in ordinary times some Rs. 250. From this 75 maunds of oil will be yielded, which, at Rs. 4 per maund, is worth Rs. 300, giving a profit of Rs. 50, out of which have to be paid Rs. 20 for feeding the cattle, and something for repairs and the wear and tear of stock. The monthly profit would therefore not exceed Rs. 20 or Rs. 25 *plus* the value of the oil-cake worth about Rs. 7 or Rs. 8.

Ground-nut oil is cheaper than gingelly, but the profits of expressing it are about the same. Kánaga oil is only manufactured above the gháts, where it is very cheap, but only used for lamps. In these it gives a poor light and much smoke, irritating to the eyes and productive of headache. Below the gháts the berries of the neem tree and the seeds of the ilupa are used to produce a cheap oil instead of the kánaga. Croton berries are, like castor oil, boiled to obtain the oil.

Basket and mat makers.

There are 7,015 basket-makers and 4,030 mat-makers. The bulk of these probably belong to the Korava and Médara castes, who weave the common baskets and mats in ordinary use. There is, however, a considerable industry in fine reed mats.

Grass mats.

These are made by Labbais and Musalmans, chiefly at Wandiwash out of a reed called kóré, which grows by the side of water channels, rivers and pools, but is also cultivated upon wet land, and requires as much water as paddy. It is propagated by separation of the roots, and each plant lasts for ten years, yielding a crop of reeds once in every six months. When cut, each reed is split, and the whole, being sorted according to sizes, is tied into bundles and stacked.

There are four kinds of kóré, viz.—

Manikóré—which is the finest and thinnest.

CHAP. VIII. OCCUPATIONS. Grass mats.

Vengáyapu kóré—not quite so thin, but lighter than the above.

Kalkóré—A coarse kind found by the margin of pools: it is more brittle than the first two sorts, and is often mixed with them for economy's sake.

Uppunkóré—not grown in the district, as it occurs only by the side of salt marshes. It is not split, and is used only for coarse mats or for thatching houses.

The reeds are dyed red, black and yellow. After being split they are first soaked in water for a night, dried and then moistened again before the colours are applied. The red dye is produced from splinters of 'varthangi' wood (resembling red wood) and powdered leaves of the 'kasan' tree. A little of these mixed is sprinkled over each handful of reeds, which are twisted together and stuffed into a large pot of water. After soaking for a night, they are boiled in this pot for a short time on two consecutive days, by which time the colour has thoroughly penetrated. Sometimes alum and gingelly oil are added in the boiling to intensify the colour.

For black, the dross from a blacksmith's forge is powdered and mixed with annabhédi (sulphate of iron), gall-nut powder and the pods of the karivélan (bábul) tree. These are boiled together in water and red-dyed reeds are soaked in the decoction for a night.

For yellow, turmeric is used. It is powdered and made into a paste with water and a little castor oil. Each reed is smeared over with some of this paste and boiled with red dye water.

A very simple kind of loom is employed, and aloe twine used as the warp, from fourteen to thirty-six strings going to a span's breadth according to the fineness of the mats. These are usually woven in pieces 6 feet by 3 feet, but the breadth can be increased to 4 feet if required, and there is no limit to the length. Two coarse mats of the usual size can be woven in a day; the coarsest sell for 2 annas each, and the finer sorts, with a simple coloured pattern, vary in price up to Rs. 2. A few of the more skilful workmen introduce the figures of animals, flowers, &c., into the pattern, and such fetch as much as Rs. 7 each.

A cart-load of reeds containing twenty bundles and sufficient for some two hundred mats is bought for Rs. 40 or Rs. 50. The earnings of the workmen do not exceed, as a rule, 2 or 3 annas a day. Women gather, split and prepare the reeds, earning by this means an ordinary day's cooly. Before the South Indian Railway was opened Wandiwash mats were largely exported to Madras, but the trade has been greatly reduced by the competition of the better kinds made in the Tinnevelly district.

Leather.

Workers in leather number 14,300. Of these 7,207 are shoe and sandal-makers and 6,427 are water-bag and well bucket-makers. Tanners number only 640.

Tanning.

Tanning is chiefly in the hands of the Labbais of the Arcot and Gudiyáttam taluks. Chucklers in various parts of the district prepare leather, in a rough way, with chunam and barks, but the best is made by the Labbais. Their *modus operandi* is as follows :—Hides are tanned fresh, or cured with salt, which preserves them for a month or two. Fresh hides produce the best leather, but often they cannot be got in large numbers. About a hundred hides are tanned together, being first placed in a large vat containing water, to which 50 or 60 measures of chunam have been added. They soak in this for ten days, being taken out each day and replaced after the liquid has been stirred. After ten days the hair is easily scraped off with a blunt two-handled knife passed over them as they lie upon a flat board. On the next day, after a thorough washing, the inner surface is well scraped with the same knives. Another good soaking is followed by another scraping of the hair side, and finally all the hides are well trodden out by men in a large vat of pure water, to remove as much of the chunam as possible. They are then considered clean enough to be tanned. The bark of the ávāram tree (*Cassia auriculata*) is used for this purpose, and 50 maunds or more of it are used for one hundred cow hides. Twenty maunds of the bark are first soaked in the tan vat for from six to ten hours and then removed. The hides are then carefully arranged so that two are succeeded by a layer of the bark, which has been soaked. The whole mass is removed once a day, and repacked as before for ten or eleven days, after which the whole process is repeated with another twenty maunds of fresh bark, for ten or eleven days more, and again for a third period of the same duration, but with only ten maunds of bark. At this stage, the leather is tested by an experienced tanner with a knife. If it cuts properly it passes under the next process, if not more bark, according to its immaturity, is used for a few more days. When the leather is ripe it is washed and the inner surface again scraped, after which five maunds of gall-nut (*Terminalia chebula*) are powdered and scalding water is poured over it. Into this liquid each skin is well dipped, and then laid out in a vat, the balance of the gall-nut water being finally sprinkled over the heap. After a day the skins are repacked, and on the next day are taken out and found whitened by the process. They are then oiled, a mixture of two parts fat and one part gingelly-oil, well heated and mixed, being rubbed into the inside and pure gingelly into the outside surface. A common cooly will thus oil twenty cow hides in a day, the effect being to make the leather supple and glossy. For a day

CHAP. VIII. OCCUPATIONS. Tanning.

the hides are dried in the shade, and afterwards stretched and rubbed with a stick having a smooth copper head. A final polish with smooth stones is given, and then nothing remains but to trim and dry them. At various stages in tanning, hides, especially cured ones, are spoiled and rejected. The ordinary cost of tanning a cow hide is about a rupee and for a sheep or goat skin three or four annas. The latter are rubbed on both sides with gingelly oil alone and are tanned with half as much bark and in half the time needed for the thicker hides of cows or bullocks. Leather is always sold by weight, a good price per pound being 5 to 7 annas for cow hides, 15 annas to Rs. 1–2–0 for goat skins, and 9 annas to 15 annas for sheep skins, but prices are sometimes 25 per cent. lower than this. The profits depend upon the amount of work done, being about 20 per cent. on the value of the leather tanned.

Personal services.

The number of domestic servants is comparatively small. There are, for example, only 1,459 cooks, and as the district contains 344,091 inhabited houses, it will be seen how very few households have a hired servant to do their cooking, for the above number includes not only persons who actually cook, but also those dependent on them. The number of other in-door servants is only 4,367, and of these 2,459 are females. There are 3,988 persons under the head of grooms, coachmen and dog-boys, and 2,195 under that of door-keepers, &c.

Turning to the personal services which are rendered to more than one household by the same individual, we have first the washerman, which class numbers 30,287. The barbers (13,462) are the only other important class of this kind, but the tailors should, perhaps, be included: there are 3,324 of them.

Food and drink.

Of persons who provide food and drink, including the sale of those articles, the keeper of the petty miscellaneous shop is numerically the most important. These appear in the census tables under the head of grocers and general condiment dealers and number 30,496. Cow and buffalo keepers, including milk and butter sellers, number only 1,950, while there are only 316 ghee preparers and sellers. It is, in fact, only in the towns that these articles are provided by special individuals; in villages they are produced at home, or, if purchased, they are bought from a ryot whose chief means of subsistence is agriculture.

It is only in towns, too, that the butcher is met with, and this accounts for the small number of them (1,030). The consumption of meat by the ordinary population is not enough to keep a butcher in regular employment, and on the comparatively rare occasions when a sheep or goat is killed, the happy despatch is given by a non-professional hand.

Food and drink.

The catching and sale of fish are the means of subsistence of 5,888 persons. North Arcot does not touch the sea, and the fish eaten by the people are those caught in tanks, and, perhaps, a few come from the rivers and streams.

Coming next to vegetable food, we have 3,708 vegetable-sellers and 1,106 fruit-sellers. The ordinary vegetables eaten by the people are—

Tamil.	Telugu.	English.	Price.
Kattirikkái ...	Vankáya ...	Brinjal ...	From 6 to 9 pies a viss.
Vázhaikkái ...	Aratikáya ...	Plantain ...	From 6 to 8 an anna.
Vendaikkái ...	Bendakáya ...	Ladies' fingers.	From 6 pies to 1 anna a viss.
Pudalankái ...	Potlakáya ...	Snake gourd ...	From 2 to 6 pies each.
Suraikkái ...	Sorakáya ...	Gourd ...	From 4 to 8 an anna.
Vellirikkái ...	Dósakáya ...	Cucumber ...	From 6 to 12 an anna.
Púshinikkái / Sarkarai púshinikkái.	Gummadikáya ...	Melon pumpkin.	From 2 to 4 annas each.
Séppankizhangu.	Chámagadda ...	Egyptian arum.	From 1 to 1½ annas a viss.
Karanaikkizhangu.	Kandagadda ...	Elephant yam.	From 1 to 1½ annas a viss.
Kárákkaranai ...	Tiyyakanda ...	......	From 1½ to 2 annas a viss.
Vallikkizhangu ...	Genusugadda ...	Sweet potato ...	From 6 pies to 1 anna a viss.
Avaraikkái ...	Chikkudikáya ...	Bean ...	From 1 to 2 annas a viss.
Kottavaraikkái ...	Góruchikkudikáya.	Cluster bean ..	From 6 pies to 1 anna a viss.
Pírkkankái ...	Bírakáya ...	......	From 6 to 10 an anna.
Págalkái ...	Kákarakáya ...	......	From 9 pies to 1 anna a viss.

The fruits chiefly sold are cocoanuts, plantains, oranges and mangoes. There is no particular kind of cocoanut or plantain peculiar to North Arcot, but its mangoes and oranges are famous. There are mango orchards in many parts of the district, but most attention has perhaps been given to the production of special varieties in Chittoor and its neighbourhood. A good mango orchard will bring in from Rs. 100 to Rs. 150 an acre per annum. Oranges are still more profitable, but the cost of cultivation is much higher, as they need heavy manuring. In the neighbourhood of Sítghur and Ambúr an orange garden will fetch about Rs. 500 a year for the crop of one acre, and the present writer heard of a garden of 6·4 acres, of which one year's crop fetched Rs. 6,500, and the purchaser had to pick the fruit himself.

CHAP. VIII. OCCUPATIONS.

Food and drink.

Coming next to the suppliers of drinks, condiments and narcotics, the most important item is that of toddy-drawers and sellers, who number 15,013. Manufacturers and sellers of other intoxicating liquors number 1,746, so that the total number is about 16,700, or 0·77 per cent. of the total population.

There are only 23 opium sellers and but 57 purveyors of bhang and other preparations of hemp. The number of betel-leaf and areca-nut sellers is 7,276, while the sale of tobacco and snuff supports 3,034 persons; but both of these articles are extensively sold in the *chillara* or 'miscellaneous' shops already mentioned.

Money-lenders.

The number of persons supported by money-lending is only 1,909. On the assumption that the family of each individual money-lender consists on an average of himself and four others, the total number of actual money-lenders is thus only 382, which is about half of the corresponding figure of 1881. It is well known, however, that money lending is chiefly in the hands of well-to-do ryots and shopkeepers, and these men frequently conceal the fact in order to avoid payment of income-tax on their transactions.

The professional classes.

The priesthood supports more people (7,382) than any other profession, and the subsidiary services connected with religion maintain 2,723 individuals. Teaching affords subsistence to 5,560, while the lawyers, including every class of pleader, number only 1,007, *i.e.*, about 200 actual workers. The native doctors and their families number 3,245, and there are 329 persons supported by midwifery. Music, acting and dancing afford subsistence to 4,261 individuals, and astrology supports only 356. There are altogether 30,000 persons dependent on professions for their chief means of livelihood, but, as will be seen, some of the callings which are recognized as professions in the census tables do not require much knowledge or special training.

Administration.

Allied to the professions is the public service. The total number under this head is 50,000, but 34,000 of these are village servants. Of the remainder 2,000 are soldiers, 9,000 are peons, police constables and the like, and 3,000 are clerks, sub-registrars, police inspectors, &c. The number of persons supported by state pensions is 11,650; these are not included in the figure given above.

Beggars.

The number of people who are returned as supported by mendicancy (other than religious mendicants) is 17,578, or one to every 124 of the inhabitants of the district. Taking six pies per head as the average daily cost of supporting these individuals, the total annual tax on the district for mendicants is a little over two lakhs. The number of beggars is really greater than the figure given above for many, and those the most importunate, are

included under the head of religion, and many have no doubt returned some occupation other than mendicancy. CHAP. VIII. OCCUPATIONS.

Taluk statistics.

The annexed table shows for each taluk the numbers subsisting by the principal occupations. The system of classification differed slightly from that adopted for the Imperial census tables, but the discrepancies between the two sets of figures are not great.

TRADE.

Statistics of trade are compiled, not for separate districts, but for blocks, and it is, therefore, impossible to give any definite information regarding the volume of the exports and imports of North Arcot. The chief exports are rice, ground-nuts, hides, skins and horns, jaggery, spirits, stone and Indian piece-goods, while the most important imports are European piece-goods, yarn and twist, salt, chillies, tobacco and a certain amount of unwrought brass and iron. Vellore and Wálájápet were formerly great centres of trade, but with the opening of the railways, the necessity for these local exchange marts has ceased, and both towns are declining, though there is still a considerable trade in grain at Vellore.

Statement showing the Occupations of the people.

Taluk.		Landholders and tenants.	Agricultural labourers.	Other labourers.	Traders.	Artisans.		Others.	Total.
						Weavers.	Other artisans.		
Arcot ...	Taluk	96,819	27,486	6,864	10,052	7,230	6,008	11,491	165,950
	Town	1,640	724	1,397	2,653	525	1,463	2,526	10,928
TOTAL, ARCOT TALUK ...		**98,459**	**28,210**	**8,261**	**12,705**	**7,755**	**7,471**	**14,017**	**176,878**
Arni ...	Taluk	49,480	8,911	4,673	7,249	7,482	5,022	8,913	91,730
Chendragiri	do.	59,178	10,040	7,099	6,806	1,820	4,542	10,709	100,194
Tirupati ...	Municipality ...	2,540	278	1,946	3,026	511	1,824	4,117	14,242
TOTAL, CHENDRAGIRI TALUK ...		**61,718**	**10,318**	**9,045**	**9,832**	**2,331**	**6,366**	**14,826**	**114,436**
Chittoor ...	Taluk	135,302	17,485	9,757	7,037	1,980	6,040	12,683	190,284
	Town	1,652	352	1,486	1,719	37	816	3,903	9,965
TOTAL, CHITTOOR TALUK ...		**136,954**	**17,837**	**11,243**	**8,756**	**2,017**	**6,856**	**16,586**	**200,249**
Gudiyáttam	Taluk	85,228	30,807	6,915	11,970	1,848	7,471	13,723	157,962
	Municipality ...	1,349	1,344	1,419	3,656	7,301	871	2,807	18,747
TOTAL, GUDIYÁTTAM TALUK ...		**86,577**	**32,151**	**8,334**	**15,626**	**9,149**	**8,342**	**16,530**	**176,709**
Kálahasti ...	Taluk	33,176	4,823	5,140	5,994	1,204	2,909	5,566	58,812
	Town	1,365	196	2,037	2,508	995	951	3,702	11,754
TOTAL, KÁLAHASTI TALUK ...		**34,541**	**5,019**	**7,177**	**8,502**	**2,199**	**3,860**	**9,268**	**70,566**
Kangundi ...	Taluk	36,557	5,010	1,914	3,257	181	2,114	5,019	54,052
Mádarpák ...	do.	41,423	11,916	2,980	6,335	3,191	4,371	7,078	77,294
Palmanér ...	do.	30,659	1,296	7,409	2,567	496	1,781	3,927	48,135

II.

Statement showing the Occupations of the people—cont.

Taluk.		Landholders and tenants.	Agricultural labourers.	Other labourers.	Traders.	Artisans.		Others.	Total.
						Weavers.	Other artisans.		
Pólúr ...	Taluk	85,307	17,049	5,563	6,477	2,915	5,038	8,729	131,078
	Town	3,962	394	837	1,420	255	530	1,233	8,631
Total, Pólúr Taluk ...		**89,269**	**17,443**	**6,400**	**7,897**	**3,170**	**5,568**	**9,962**	**139,709**
Punganúr ...	Taluk	54,890	6,297	8,192	5,064	1,284	2,712	8,019	86,458
	Town	1,822	143	456	1,186	28	445	1,485	5,565
Total, Punganúr Taluk ...		**56,712**	**6,440**	**8,648**	**6,250**	**1,312**	**3,157**	**9,504**	**92,023**
Puttúr ...	Taluk	85,519	18,596	13,823	11,318	5,730	6,247	8,267	149,500
Kárvetnagar	Town	1,482	240	1,373	957	3	354	1,637	6,046
Total, Puttúr Taluk ...		**87,001**	**18,836**	**15,196**	**12,275**	**5,733**	**6,601**	**9,904**	**155,546**
Tirattani ...	Taluk	100,103	31,345	5,692	9,574	7,212	6,515	12,710	173,151
Vellore ...	Do.	73,754	26,707	6,715	8,764	2,095	7,299	12,092	137,426
	Municipality ...	4,688	1,403	4,720	10,073	317	5,585	18,139	44,925
Ambúr ...	Town	2,249	380	1,584	3,091	383	759	2,140	10,586
Total, Vellore Taluk ...		**80,691**	**28,490**	**13,019**	**21,928**	**2,795**	**13,643**	**32,371**	**192,937**
Wálájápet ...	Taluk	133,866	28,338	11,715	11,927	10,725	8,995	16,882	222,448
	Municipality ...	1,115	96	1,148	2,893	1,658	1,084	2,491	10,485
Sholinghur ...	Town	2,651	196	479	825	756	270	1,239	6,416
Total, Wálájápet Taluk ...		**137,632**	**28,630**	**13,342**	**15,645**	**13,139**	**10,349**	**20,612**	**239,349**
Wandiwash	Taluk	113,844	23,341	10,122	8,042	3,298	7,276	11,800	177,723
Grand Total ...		**1,241,620**	**275,193**	**133,455**	**156,440**	**71,460**	**99,292**	**203,027**	**2,180,487**

2

CHAP. VIII.
Occupations.
Taluk statistics.

CHAPTER IX.

AGRICULTURAL STATISTICS.

CHAP. IX. THE LAND.

THE total area of the district is 4,874,135 acres, and this is distributed as shown below:—

	ACRES.
Government lands	2,493,721
Minor inám	118,315
Whole inám	82,259
Zemindári	2,179,840
TOTAL ..	4,874,135

The figure given as the area of Government lands is that ascertained by professional survey, but the extent entered in the village papers is 2,492,607 acres. The difference is small; but in the following remarks the latter figure is adopted, as the statistics are all based on village returns.

Extent per head.

Of the total area of Government land, 1,288,762 acres, or 51·70 per cent., are not available for cultivation. About half of this extent (601,713 acres) is forest and the other half consists of land which is unculturable, or which is occupied by roads, railways, village sites and the like. The area available for cultivation thus comprises 1,203,845 acres, and of this extent 823,446 acres, or 68·40 per cent., are occupied and 380,399 acres are still available for the extension of cultivation. All the minor inám lands are, of course, occupied, and the extent cultivated in 1892–93 was 83,821 acres. The total extent of arable land in Government villages is thus 1,322,160 acres. The population of these villages is 1,356,074, so that there is 0·97 of an acre of culturable land for each inhabitant, but the extent actually cultivated is only 0·69 of an acre. The real ratio of cultivated land to population is, however, greater than this for some of the land is cropped more than once. If allowance be made for this the proportion of cultivated land to each inhabitant is 0·84 of an acre. It is not possible to give the extent of uncultivated land which is ordinarily capable of yielding two crops in a year, but it may be taken that it is very small indeed, as such good land would be left uncultivated only in very exceptional circumstances. Neglecting this and taking into account only the land actually cropped more than once, the extent of culturable land to each inhabitant

Extent per head.

is 1·12 acres. There is still considerable room for the expansion of cultivation, for in 1892–93 there were 380,000 acres of culturable land available for any who chose to apply for it. Much of this is no doubt inferior dry land which would need a good deal of preparation and clearance, but that is the case with unoccupied land in most countries.

As the question of the pressure of the population on the land is one of great importance, detailed statistics for each taluk are given below. The acreage figures are for the year 1892–93, but the population statistics are necessarily those of the last census (1891).

Statement showing the pressure of the population on the land.

Taluk.	Population of Government villages.	Number of acres per inhabitant.*		Number of acres per inhabitant.†	
		Arable land.	Cultivated land.	Arable land.	Cultivated land.
Arcot	173,009	1·18	0·76	1·30	0·89
Chendragiri	75,849	0·71	0·54	0·83	0·66
Chittoor	155,396	0·99	0·69	1·17	0·86
Gudiyáttam	174,303	0·77	0·63	0·94	0·80
Palmanér	46,010	1·45	1·04	1·57	1·16
Pólúr	139,558	1·30	0·73	1·45	0·89
Vellore	191,494	0·54	0·44	0·66	0·57
Wálájápet	224,514	1·02	0·75	1·14	0·86
Wandiwash	175,941	1·12	0·86	1·32	1·05
TOTAL ...	**1,356,074**	**0·97**	**0·69**	**1·12**	**0·84**

* Exclusive of the extent cropped more than once.
† Inclusive of the extent cropped more than once.

In Chittoor, Gudiyáttam, Pólúr, Arcot and Wálájápet the area of cultivated land per inhabitant (including the area cropped more than once) does not differ much from the average. The pressure is greatest in Vellore and Chendragiri and least in Palmanér and Wandiwash. The land in Palmanér is undoubtedly the poorest in the district, but, judging by the average assessment, there are several other taluks in which the lands are inferior to those of Wandiwash; that taluk has suffered heavily of late, however, from the failure of the rains. Nor are Vellore and Chendragiri the richest taluks, as judged by the test of average assessments, for Arcot, Wálájápet and even Wandiwash have higher averages. The Chendragiri valley, however, is wonderfully rich, and in the Vellore taluk there is a comparatively large urban population depending on trade rather than agriculture.

CHAP. IX. THE LAND.

Extent per head.

As explained above the foregoing statistics are for the year 1892–93, which was a fairly good one, while the two previous seasons were unfavourable. If we take the average of the three years ending with 1892–93, the annual extent cultivated was 784,317 acres, and this gives an average per head of only 0·58 of an acre if second crops are neglected, and 0·71 of an acre if they are included. Three-quarters of an acre per head, including second crop, may be accepted as the ordinary proportion. The average area occupied during the three years 1890–93 was just under 930,000 acres or 0·69 of an acre per head.

Statistics similar to those given above are not available for zemindáris and whole inám villages, but taken as a whole, their circumstances probably do not differ from those of the rest of the district.

Ryotwári holdings.

Turning now to the purely *ryotwári* land, the best statistics available are those for the *fasli* or agricultural year. The bulk of this land is held on *pattá*, but a comparatively small extent is sometimes taken up for cultivation late in the season without any formal application for it. During the five years ending with *fasli* 1301 (June 1892) the average extent of land held by ryots on *pattá* was 788,000 acres. Of this extent about 246,000 acres, or 31 per cent., were irrigated or wet lands, while the rest were either unirrigated or irrigated from wells which the occupants had themselves constructed in lands classed as dry in the settlement accounts.

Ryotwári Holdings.

Year.	Holdings. Dry.	Holdings. Wet.	Holdings. Total.	Pattás.	Average area per pattá.
	ACS.	ACS.	ACS.	NO.	ACS.
1887–88	536,909	244,375	781,284	194,131	4·02
1888–89	539,586	245,510	785,096	200,230	3·92
1889–90	547,464	246,260	793,724	198,747	3·99
1890–91	547,122	247,224	794,346	203,278	3·91
1891–92	535,667	247,767	783,434	202,402	3·87
AVERAGE ...	**541,350**	**246,227**	**787,577**	**199,758**	**3·94**

The great decline in the extent of the holdings in the last year of the series is due to the very unfavourable character of the season, which led ryots to throw up their dry lands. It will be observed that there was no falling off in the area of wet land occupied. This is due to the fact that wet land has always a considerable sale-value, while if the crop is a total failure through the deficiency of water the assessment is invariably remitted. In the case of dry land, on the other hand, remission is granted only in very exceptional years.

CHAP. IX.
THE LAND.

The size of farms.

The number of *pattás* is in round numbers 200,000, which gives an average extent per *pattá* of slightly less than 4 acres. The average area per *pattá* is not, however, the same thing as the average size of the farm held by each ryot, for one man may, and frequently does, hold several *pattás;* on the other hand about one-third of the *pattás* are held by more than one individual. There are 231,650 of these joint *pattádárs* and 128,507 holders of single *pattás*, but it is not possible to deduce from these figures the actual number of ryots. They are certainly not so numerous as the total of these two numbers, viz., 360,157, for most of the joint *pattádárs* are members of a single family and some of them also hold single *pattás*. But whatever the exact figure may be there can be no doubt, not only that the average holding is very small, but that the great majority of them are so. This is well brought out by the following statement, in which *pattás* are classified according to the amount of land-assessment payable. The classification unfortunately does not go into details for those paying less than Rs. 10 :—

Statement showing the Rent-roll of North Arcot for fasli 1301.

—	Single pattás.	Joint pattás.	Number of registered holders of joint pattás.
	NO.	NO.	NO.
Pattás under Rs. 10	95,648	47,890	143,227
Do. between Rs. 10 and Rs. 30 ...	24,633	17,934	57,516
Do. " Rs. 30 and Rs. 50 ...	4,889	4,941	17,861
Do. " Rs. 50 and Rs. 100 ...	2,707	2,443	9,757
Do. " Rs. 100 and Rs. 250 ...	586	643	3,011
Do. " Rs. 250 and Rs. 500 ...	35	39	168
Do. " Rs. 500 and Rs. 1,000 ...	9	5	110
TOTAL NUMBER OF PATTÁS ...	128,507	73,895	231,650

It will perhaps bring out the significance of these figures better if we endeavour to turn them into acres. Taking the average assessment of the land, a *pattá* for Rs. 100 would represent a farm of 80 acres of dry land, or 18 acres of wet, but as the wealthier pattádárs almost invariably hold the best lands, the actual figures would probably be less than this. Such a farm, moreover, would never consist entirely of dry land, though it might and usually does consist entirely of wet. Taking it all round 25 acres is, I think, an outside estimate of the average extent of such farms, and the number of *pattás*, single and joint, for Rs. 100 and upwards is only 1,317, or 0·65 per cent. of the total.

An attempt may be made to estimate the average size of a farm by means of the occupation statistics of the census. According

CHAP. IX. THE LAND.

The size of farms.

to these, farmers form 48 per cent. of the total population, and applying this percentage to the inhabitants of Government villages we arrive at 650,916 as the number of farmers among them. The area of occupied land, *ryotwári* and *inám*, in these villages is 941,761 acres. Now there are on average 6·34 persons in each inhabited house, and allowing for some houses containing more than one family, we may take it that the ordinary family consists of six individuals. This would give us an average of 8·68 acres to each farmer's family. It is probable, however, that some members of farmer's families have been shown as landowners, while others, chiefly children, appear as herd-boys, gatherers of fuel, &c. Adding 25 per cent. for this error, we get 6·9 acres as the average farm. This estimate is probably too high, for it would involve the conclusion that the number of farms is about half the number of *pattás*. On the other hand, I think this estimated area is nearer than that given by taking the farm as equal to the extent per *pattá*, 3·94 acres, for the extent of occupied land to each pair of tilling cattle is nearly 5½ acres, and there must be very few farmers who do not own a pair of bullocks or buffaloes, while many possess more than one pair.

Cultivation of ryotwári land.

The average extent of *ryotwári* land actually cultivated during the last five years is 674,000 acres or 86 per cent. of the average holdings; 13 per cent. was either left fallow or remained uncultivated owing to neglect on the part of the ryots. Only 1 per cent. was left waste, to use the technical expression, owing to causes beyond the occupant's control and the assessment on this was remitted. In the case of dry land 82·46 per cent. was cultivated and 17·54 per cent. was either treated as fallow or left waste owing to neglect. Of the wet land 92⅓ per cent. was cultivated and 3⅔ per cent. was deliberately allowed to remain uncultivated; the remaining 4 per cent. of the wet land was left waste owing to failure of the season and the assessment was, therefore, not charged. In fasli 1301 the assessment was remitted on no less than 34,416 acres of wet land left waste, the amount involved being Rs. 1,58,884. But this was not all, for Rs. 1,37,292 were remitted for loss of crop, and on many wet lands dry assessment only was charged. The loss of revenue due to this latter concession was Rs. 95,037. The remissions were heaviest in the south of the district.[1] It is curious that the area actually cropped was appreciably greater in the earliest year of the quinquennium than in any of the others. The season in that year was very favourable to dry crops.

---

[1] For further details see 'Land Revenue Remissions' *infra*.

Cultivation of ryotwári land.

Cultivation of Ryotwári Land.

Fasli.	Dry.				Wet.				Total.			
	Occupied.	Cultivated.	Waste charged.	Waste remitted.	Occupied.	Cultivated.	Waste charged.	Waste remitted.*	Occupied.	Cultivated.	Waste charged.	Waste remitted.
1	2	3	4	5	6	7	8	9	10	11	12	13
	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.
1297* ...	536,909	465,574	71,292	43	244,375	233,085	10,986	304	781,284	698,659	82,278	347
1298 ...	539,586	450,419	89,167	...	245,510	234,949	10,120	441	785,096	685,368	99,287	441
1299 ...	547,464	456,747	90,717	...	246,260	230,507	11,964	3,789	793,724	687,254	102,681	3,789
1300 ...	547,122	448,304	98,818	...	247,224	228,284	9,345	9,595	794,346	676,588	108,163	9,595
1301 ...	535,667	410,852	124,815	...	247,767	210,674	2,677	34,416	783,434	621,526	127,492	34,416
AVERAGE.	**541,350**	**446,379**	**94,962**	**9**	**246,227**	**227,500**	**9,018**	**9,709**	**787,577**	**673,879**	**103,980**	**9,718**

Crops.

The annexed statement shows for each of the six years ending 31st March 1893 the acreage under each kind of crop grown on *ryotwári* and minor *inám* lands. In the case of lands cropped more than once in a year, their extent is taken to account for each crop. The area cropped will, therefore, exceed the area shown as cultivated.

Statement showing the acreage under each kind of crop.

—	1887–88.	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.	Average.
Cereals.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.
Rice (*Oryza sativa*)	402,460	416,007	411,144	382,141	271,850	373,737	**376,223**
Cholum (*Sorghum vulgare*)	28,580	30,044	38,078	39,965	97,377	51,006	**47 508**
Cumbu (*Pennisetum typhoideum*)	122,902	100,740	107,431	126,946	86,493	111,376	**109,315**
Ragi (*Eleusine coracana*)	128,875	127,345	123,495	120,171	143,698	136,487	**130,012**
Varagu (*Paspalum scrobiculatum*)	87,902	86,472	84,811	71,229	46,292	110,154	**81,143**
Sámai (*Panicum miliare*)	5,666	6,210	4,782	3,630	4,397	10,144	**5,805**
Wheat (*Triticum sativum*)	24	10	11	10	15	36	**18**
Korra (*Setaria italica*)	506	697	383	327	510	1,018	**574**
Maize (*Zea mays*)	646	335	277	279	246	263	**341**
Others	1,514	33	2,849	492	900	299	**1,014**
TOTAL ...	**779,075**	**767,893**	**773,261**	**745,190**	**651,778**	**794,520**	**751,953**
Pulses.							
Bengal-gram (*Cicer arietinum*)	104	289	106	183	318	256	**209**
Dholl (*Cajanus indicus*)	4,766	5,295	5,812	6,867	4,641	6,737	**5,687**
Horse-gram (*Dolichos biflorus*)	40,851	39,060	35,028	38,774	68,919	70,750	**48,897**
Green-gram (*Phaseolus mungo*)	804	913	822	1,186	1,452	1,647	**1,137**
Black-gram (*Phaseolus mungo, var radiatus*) ...	3,120	4,083	3,665	2,174	3,609	2,080	**3,122**
Cow-gram (*Vigna catiang*)	100	9	231	226	...	...	**94**
Mochaikottai (*Dolichos lablab*)	239	218	140	1,009	...	...	**268**
Others	1,033	156	1,100	963	1,240	548	**840**
TOTAL ...	**51,017**	**50,023**	**46,904**	**51,382**	**80,179**	**82,018**	**60,254**

Statement showing the acreage under each kind of crop—cont.

—	1887–88.	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.	Average.
	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.
Orchard and Garden Produce.							
Plantains (*Musa sapientum*)	827	886	892	717	367	268	**659**
Vegetables (including starches)	3,599	2,063	1,674	2,105	2,869	2,168	**2,413**
Mangoes (*Mangifera indica*)	10,484	9,331	11,038	10,992	11,501	11,961	**10,884**
Cocoanuts (*Cocos nucifera*)	4,041	3,947	6,431	5,245	6,268	6,997	**5,488**
Babul trees	277	501	231	306	220	403	**323**
Topes (various)	5,914	6,880	7,246	6,163	* 4,015	1,791	**5,335**
Casuarinas	829	796	701	764	706	954	**792**
Others	6,282	8,477	14,817	14,878	† 9,178	11,911	**10,924**
TOTAL ...	**32,253**	**32,881**	**43,030**	**41,170**	**35,124**	**36,453**	**36,818**
Drugs and Narcotics.							
Tobacco (*Nicotiana tabacum*)	901	983	889	557	672	664	**777**
Hemp (*Cannabis sativa*)	...	60	163	9	...	...	**39**
Others	13	23	8	36	30	88	**33**
TOTAL ...	**914**	**1,066**	**1,060**	**602**	**702**	**752**	**849**
Condiments and Spices.							
Chillies (*Capsicum frutescens*)	2,529	3,283	2,881	3,222	3,019	2,889	**2,970**
Tamarind (*Tamarindus indica*)	3,980	3,666	3,479	4,334	3,835	3,781	**3,846**
Betel-vines (*Piper betle*)	2,224	2,093	1,850	1,698	1,585	1,426	**1,813**
Others	1,031	1,160	1,372	1,243	1,060	602	**1,078**
TOTAL ...	**9,764**	**10,202**	**9,582**	**10,497**	**9,499**	**8,698**	**9,707**

* Fruit trees only. † There was a change in classification this year.

Statement showing the acreage under each kind of crop—cont.

——	1887–88.	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.	Average.
Sugar.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.
Cane (*Saccharum officinarum*)	4,298	5,038	5,966	5,072	5,658	4,567	**5,100**
Palmyra (*Borassus flabelliformis*)	1,678	2,034	2,088	1,835	1,200	1,266	**1,683**
Others	144	232	755	773	175	707	**464**
TOTAL ...	**6,120**	**7,304**	**8,809**	**7,680**	**7,033**	**6,540**	**7,247**
Oils and Seeds.							
Gingelly (*Sesamum indicum*)	66,222	74,046	75,752	66,560	34,039	53,708	**61,721**
Lamp and castor (*Ricinus communis*)	15,538	15,895	18,303	21,037	12.307	16,134	**16,536**
Ground-nut (*Arachis Hypogæa*)	17,113	24,672	25,893	32,300	22,918	24,098	**24,499**
Iluppai (*Bassia longifolia*)	2,705	2,836	2,866	1,617	...	...	**1,671**
Others	1,761	1,865	1,949	2,693	1,726	2,343	**2,056**
TOTAL ...	**103,339**	**119,314**	**124,763**	**124,207**	**70,990**	**96,283**	**106,483**
Dyes (not forest).							
Indigo (*Indigofera tinctoria*)	18,838	21,088	16,457	10,533	7,727	10,806	**14,242**
Others	402	207	266	192	32	242	**223**
TOTAL ...	**19,240**	**21,295**	**16,723**	**10,725**	**7,759**	**11,048**	**14,465**
Fibres	**803**	**217**	**382**	**647**	**207**	**226**	**414**
Grand Total ...	**1,002,525**	**1,010,195**	**1,024,514**	**992,100**	**863,271**	**1,036,538**	**988,190**

Crops.

Rice is much the largest crop: it occupies more than a third of the total acreage, and is grown in every part of the district, but on the plateau it is relatively less frequent than elsewhere. Next to rice come the dry grains, ragi, cumbu, varagu, horse-gram and cholum. These, like rice, are grown throughout the district, but the proportion of land under them is higher above the gháts than below. In 1891–92 the rains were so unfavourable that there was a great decline in the acreage under rice and an increase in the extent under cholum, ragi and horse-gram, which were no doubt grown on rice lands.

Of special crops the most important is oil-seeds, the normal acreage under it being from 100,000 to 120,000 acres, against only 49,000 acres in 1870. Wandiwash has much the largest acreage under this crop. Indigo appears to be declining; the greatest extent was in 1888–89, when it was grown on 21,000 acres. A violent decline in the acreage under this valuable product occurred some twenty years ago and it is possibly periodic. Thus, in 1870, the area was 14,000 acres, in 1872 this had risen to 23,000 acres, but in 1874 there was a sudden drop to 6,700 acres. Indigo is grown chiefly in Wálájápet and Gudiyáttam. The area under sugar-cane is about 5,000 acres or nearly twice that of twenty years earlier. Chittoor has the largest acreage.

LAND REVENUE.

The total land revenue of the district is in ordinarily good years about 27 lakhs of rupees. Of this sum 20·75 lakhs constitute the assessment payable on *ryotwári* holdings, 4·77 lakhs the *peshkash* or revenue payable by the permanently-settled estates, while the rest is the revenue derived from *inám* villages and miscellaneous sources. The land revenue demand is given below for a series of years:—

Fasli year.	Land revenue.	Fasli year.	Land revenue.	Fasli year.	Land revenue.
	RS.		RS.		RS.
1287 ...	23,29,690	1292 ...	24,95,702	1297 ...	27,33,935
1288 ...	24,90,218	1293 ...	26,26,298	1298 ...	27,64,441
1289 ...	23,49,584	1294 ...	26,07,147	1299 ...	27,38,264
1290 ...	24,42,948	1295 ...	26,59,539	1300 ...	26,26,017
1291 ...	24,24,767	1296 ...	27,58,631	1301 ...	21,36,650
AVERAGE.	**24,07,441**	AVERAGE.	**26,29,603**	AVERAGE.	**25,99,861**

The average of the last quinquennium was depressed by the very unfavourable character of fasli 1301, in consequence of which large remissions of land revenue were made. The figures given above include the extra charges for water-rate and for second crop on wet lands. These amount to about two lakhs in a normal year, but in fasli 1301 they came to only Rs. 68,582. The average assessment is Rs. 1–3–4 per acre for dry and Rs. 5–8–0 per acre for wet lands, the corresponding figures for the whole presidency being about Re. 1 and Rs. 5.

CHAP. IX. LAND REVENUE.

Collection of the revenue.

The foregoing figures do not include the cesses levied on land for various purposes. These amount to about Rs. 4,20,000 per annum, and in the statistics showing the collections of revenue no distinction is made between these cesses and the land assessment. The total demand including the cesses comes to over 30 lakhs, and the following statement gives the gross demand and collections for each of the last five years :—

Fasli year.	Demand.	Collected within the the year.	Balance uncollected within the year.	Arrears of previous years collected within the year.
	RS.	RS.	RS.	RS.
1297 ...	31,20,535	29,63,391	1,57,144	2,10,482
1298 ...	31,55,765	30,06,089	1,49,676	1,73,786
1299 ...	31,80,545	31,76,830	3,715	1,45,894
1300 ...	30,70,159	29,89,635	80,524	3,690
1301 ...	25,58,291	22,22,249	3,36,042	79,947

Both of the last two years were unfavourable, and this accounts for the large balance uncollected within the year. In respect of the greater part of these balances time was given for payment. It is, indeed, clear that the ryots are not unduly pressed to pay their assessments, for even in fasli 1301 (a very bad year) property was distrained in only 10,712 cases and in only 164 of these was the property actually sold. In the previous year the figures were 4,739 and 114 respectively. It must be remembered that the number of *pattás* is something over 200,000. The average cost of collection and administration is Rs. 2,09,000 per annum, or 6·9 per cent. of the average annual demand.

Remissions.

The amount of remission granted in each of the past ten years is shown on the margin. The assessment remitted for failure of crop is distinguished from that remitted, because the lands were not cultivated. The average amount remitted comes to just under Rs. 60,000 per annum, or about 2 per cent. of the gross revenue. The period upon which the average is calculated is a fairly typical one, containing as it does several unfavourable seasons and one markedly bad year. The remissions shown in this statement are only what are termed occasional remissions. The other so-called remissions consist of fixed deductions from the settlement assessment in consideration of water for irrigation having to be raised by some mechanical contrivance, &c., and

Fasli year.	Remission.		
	For waste.	For failure of crop.	Total.
	RS.	RS.	RS.
1292	6,198	10,934	**17,132**
1293	1,080	3,329	**4,409**
1294	13,887	23,747	**37,634**
1295	12,612	4,832	**17,444**
1296	1,572	1,384	**2,956**
1297	1,379	714	**2,093**
1298	2,261	1,580	**3,841**
1299	16,290	6,776	**23,066**
1300	42,308	33,154	**75,462**
1301	1,58,884	2,53,727	**4,12,611**

Remissions.

of payments, direct from the revenue, towards the support of religious institutions and to the Village Service Fund. The former, which only represent in part the State endowments of religion, come to about Rs. 40,000 per annum, while the yearly contribution to the Village Service Fund is about Rs. 83,000.

Taluk revenue.

To show the normal land revenue of each taluk the statistics of fasli 1299 are given below, as that is the last year in which the season was not unfavourable. The figures include the assessment on *ryotwári* lands and the quit-rents of *ináms*, but not the *peshkash* of estates.

Land Revenue Demand of each Taluk for fasli 1299.

Taluk.	Land revenue.	Cesses.	Total.
	RS.	RS.	RS.
Arcot	3,80,101	55,899	**4,36,000**
Chendragiri	1,00,438	15,978	**1,16,416**
Chittoor	2,34,884	36,221	**2,71,105**
Gudiyáttam	2,62,725	39,136	**3,01,861**
Palmanér	66,289	11,209	**77,498**
Pólúr	2,33,866	32,828	**2,66,694**
Vellore	1,98,910	29,361	**2,28,271**
Wáláját	4,06,621	60,754	**4,67,375**
Wandiwash	3,75,512	54,272	**4,29,784**
Huzur	1,938	......	**1,938**
TOTAL ...	**22,61,214**	**3,35,658**	**25,96,942**

Peshkash.

The peshkash payable by the permanently-settled estates in the district is as follows:—

Name of Estate.	Amount of peshkash.		
	Land revenue.	Cesses.	Total.
	RS.	RS.	RS.
Álattúr Jágír	...	180	**180**
Arigalavádi Muttá	2,016	366	**2,382**
Arni Jágír	5,015	14,510	**19,525**
Bangári	11,648	2,258	**13,906**
Gudipáti	2,728	467	**3,195**
Inám lands in the Góvindapalli village in Kangundi zemindári in the enjoyment of Choudamma of Kuppam.	4	1	**5**
Kálahasti	1,73,140	21,438	**1,94,578**
Kallúr	4,040	977	**5,017**
Kangundi	21,589	5,808	**27,397**
Karakambádi	...	475	**475**
Kárvetnagar	1,73,911	43,113	**2,17,024**
Krishnápuram	...	388	**388**
Náraganti	6,503	1,738	**8,241**
Pulicherla	3,020	768	**3,788**
Pulicherla and Mangalampet	1,985	760	**2,745**
Punganúr	66,797	10,442	**77,239**
Timmájammál's Estate	1,344	343	**1,687**
Tumba	1,783	253	**2,036**
TOTAL ...	**4,75,523**	**1,04,285**	**5,79,808**

CHAP. IX.
AGRICULTURAL STOCK.

The following table gives statistics of agricultural stock for a series of years. Owing to changes in the method of compilation and to the untrustworthiness of the earlier statistics, it is not easy to draw any useful comparison :—

Statement showing the Agricultural Stock in Government Villages.

—	1882–83.	1887–88.	1892–93.
Bulls and bullocks	211,510	191,715	299,686
Cows	191,685	199,279	199,473
Male buffaloes	78,885	50,229	45,927
Cow buffaloes		46,854	59,453
Calves and buffalo calves	...	106,353	247,724
Sheep	130,866	442,969	545,995
Goats	301,242		235,414
Horses and ponies	1,921	1,546	1,971
Mules and donkeys	4,394	3,839	5,594
Ploughs	98,071	135,770	163,186
Carts	17,351	17,485	23,908

The number of tilling and draught cattle is about 350,000, or a pair to every 5·45 acres occupied in 1892–93. The proportional extent varies from 4·35 acres in Vellore taluk to 6·31 acres in Palmanér and 6·39 acres in Wandiwash. The number of cows and cow buffaloes gives 19 to every 100 inhabitants. Here again Vellore has the lowest proportion, viz., 14. In Chittoor and Pólúr the number is 23, while in Palmanér it is as high as 47. Cattle are sent to Palmanér in considerable numbers for the grazing. Sheep and goats are largely kept for manurial purposes, and there are 83 of these animals to every 100 acres occupied. The number varies from 61 in Arcot taluk to 103 in Chendragiri and 128 in Chittoor. The price of a pair of bullocks varies from Rs. 25 to Rs. 100, but Rs. 40 may be taken as the average. A cow can be bought for from Rs. 10 to Rs. 30, and the price of a she-buffalo is rather more than this. The average price of sheep is Rs. 3 each, while goats can be got for a little less. The sheep are, for the most part, of the hairy Nellore breed, but on the plateau the woolly Mysore variety is common, and coarse blankets are made from its wool by the Kurumbas. The shearing takes place twice a year—once at the Dassera and once at the Sivarátri feast. Goats and sheep are used to a considerable extent for food and the milk of goats is much appreciated.

There is one plough to every 5·8 acres and one cart to every 39 acres in occupation. The taluk averages per plough correspond closely with those for tilling cattle, but in the case of carts the divergences are so great as to throw considerable doubt upon the accuracy of the statistics.

CHAP. IX. AGRICULTURAL STOCK.

Cattle mortality.

The statistics of mortality among stock during the last five years are given on the margin and a more detailed statement is appended to the chapter. These figures do not include the deaths from old age, the registration of which is very imperfect. The principal diseases are rinderpest, anthrax and dysentery. There is also a considerable mortality from snake-bite and wild animals.

Year.	Deaths.	
	Cattle.	Sheep and goats.
1888–89	19,975	2,018
1889–90	13,014	2,184
1890–91	6,969	1,512
1891–92	6,992	2,181
1892–93	5,927	2,204

In order to keep down the wild beasts the Government gives rewards for the destruction of those dangerous to cattle or human life. The following statement shows the number of animals killed and rewards paid during recent years. No rewards are given for the destruction of snakes:—

Statement of rewards paid for the destruction of wild animals in the North Arcot District.

Wild animals destroyed.	1888.		1889.		1890.	
	Number of animals.	Amount of reward.	Number of animals.	Amount of reward.	Number of animals.	Amount of reward.
		RS. A. P.		RS. A. P.		RS. A. P.
Panthers and leopards.	39	950 0 0	39	975 0 0	26	412 8 0
Bears	6	30 0 0	6	30 0 0	...	......
Tigers	1	35 0 0	1	35 0 0	...	......
Wolves ...	1	3 0 0	5	15 0 0	...	......
Hyænas ...	10	30 0 0	18	54 0 0	1	3 0 0
TOTAL ...	57	1,048 0 0	69	1,109 0 0	27	445 8 0

Wild animals destroyed.	1891.		1892.	
	Number of animals.	Amount of reward.	Number of animals.	Amount of reward.
		RS. A. P.		RS. A. P.
Panthers and leopards ...	34	606 8 0	17	362 8 0
Bears	1	5 0 0	1	3 0 0
Tigers	...	......	...	......
Wolves	...	......	...	......
Hyænas	...	......	...	......
TOTAL ...	35	611 8 0	18	365 8 0

CHAP. IX. AGRICULTURAL STOCK.

Cattle diseases.

The native names of cattle-diseases and the methods of treatment are given below: offerings to the village goddess are generally part of the treatment in all cases.

Domma rógam, Telugu; *Nenjadaippán*, Tamil.—This is of three kinds, sále, pedda and nárade domma. The symptoms of the first are a profuse discharge of saliva and swelling of the throat, which ends in suffocation. The native remedies are (1) baked milk-hedge with fried salt; (2) cumbu conjee with fried salt; or (3) onions, pepper, asafœtida and ómam. Pedda domma is evidenced by ague, weakness and swelling of the throat; the same remedies are used as for sále domma. Nárade domma is the least violent form of the disease, and branding is said to be an effectual cure.

Nalla rógam.—The symptoms of this disease are a staring coat, hot ears and purging. The remedies used are (1) white pumpkin pounded with pepper, asafœtida, onions and ómam, or (2) the leaves of cheru nelli pounded with pepper and onions. The above two diseases seem to be forms of anthrax.

Vekke, Telugu; *Visha jvaram*, Tamil.—These are the vernacular names for rinderpest. The usual remedies are (1) plantains and ghee, (2) onions, palmyra jaggery and plantain flowers pounded, (3) sour rice conjee, in which is steeped the pounded bark of a tree called 'peruma,' (4) pig's lard, (5) the leaves of the 'pillángi' bruised with pig's lard, (6) turmeric powder and ghee applied to the tongue, and (7) a sort of aloe split and given with powdered salt. Pig's lard is used to prevent the disease from spreading.

To kill the worms in foot-and-mouth disease are applied (1) camphor, (2) powdered chunam with cobwebs, or (3) the leaves of the vadisha tree. Standing the cattle in a marshy place is also considered a good thing.

Káttu rógam, Tamil; *Sarakulu*, Telugu.—This is dysentery, usually caused by eating rank grass after the rains. A decoction of roots called 'thendra' and 'adivi gummadi' is administered.

Gurrukalu, Telugu; *Múkkadaippán*, Tamil.—The symptoms are inflammation of the throat and profuse discharge of saliva, and the remedies garlic, chillies, jaggery, asafœtida, mustard, 'munaga' bark and the tender shoots of árika with pig's lard.

For ordinary ague and giddiness branding is also practised, and few cattle have escaped the operation.

Statistics of Mortality among Cattle, Sheep and Goats reported in the District of North Arcot during the years 1888–89 *to* 1892–93.

Causes of death.	1888–89.		1889–90.		1890–91.		1891–92.		1892–93.	
	Cattle.	Sheep and goats.	Cattle.	Sheep and goats.	Cattle.	Sheep and goats.	Cattle.	Sheep and goats.	Cattle.	Sheep and goats.
TOTAL STOCK ...	**731,900**	**668,000**	**731,900**	**668,000**	**920,600**	**712,800**	**883,000**	**712,800**	**851,400**	**779,900**
Deaths from diseases—										
Rinderpest	5,118	...	2,111	259	750	130	951	533	362	380
Diarrhœa and dysentery	8,304	...	4,615	298	2,042	124	1,340	15	1,866	149
Anthrax	4,250	...	4,440	428	1,721	433	2,708	850	2,460	820
Epizootic aphtha	211	...	265	1	408	38	245	...	298	2
Variola	74	...	1	586	8	97	28	355	...	507
All other diseases	1,162	...	725	62	1,129	403	810	137	143	...
TOTAL NUMBER OF DEATHS DUE TO DISEASE ...	**19,119**	**1,506**	**12,157**	**1,634**	**6,058**	**1,225**	**6,082**	**1,890**	**5,129**	**1,858**
RATE PER MILLE ...	**26**	**2**	**17**	**2**	**7**	**2**	**7**	**3**	**6**	**2**
Deaths due to other causes—										
Snake-bite	333	15	330	21	307	3	233	6	179	6
Wild animals	520	497	527	529	604	284	677	285	619	340
Criminal poisoning	3	...	...	...	...	...	...	...	...	...
TOTAL ...	**856**	**512**	**857**	**550**	**911**	**287**	**910**	**291**	**798**	**346**
TOTAL NUMBER OF DEATHS FROM ALL CAUSES ...	**19,975**	**2,018**	**13,014**	**2,184**	**6,969**	**1,512**	**6,992**	**2,181**	**5,927**	**2,204**
RATE PER MILLE ...	**27**	**3**	**18**	**3**	**8**	**2**	**8**	**4**	**7**	**3**

CHAPTER X.

IRRIGATION.

CHAP. X. IRRIGATION.

THE irrigation works in the district consist of the Pálár, Ponné (Poiney) and Cheyár anicut systems, river and rain-fed tanks, river and spring channels and wells. The total area of both first and second crops irrigated from all these sources, excluding wells, was in 1892–93 488,132 acres, bringing in a net revenue of Rs. 8,71,352.

Pálár anicut system.

The Pálár anicut (crest level M.S.L. + 491·10) was built in 1857 at a point about 5 miles below the town of Arcot and at the head of the old Kávérippákkam tank-supply channel. It took the place of a temporary *korambu* or sand bund which the villagers used to construct obliquely across the river to divert water into the tank. This korambu was frequently washed away during freshes, entailing much labour on the villagers for its reconstruction, while a large part of the often scanty supply of water was lost or wasted. Owing to this unsatisfactory state of affairs Captain Caldwell, the Superintendent of Tank Repairs, was, in 1815, deputed to inspect the spot and report whether some permanent work could not be carried out. He reported that "the adoption of any project for the permanency of this anicut, "even were it practicable, would prove the source of most danger-"ous consequences, as upon the occurrence of the great freshes so "powerful a body of water would be directed down the channel of "supply as to involve the destruction of the tank, and not only the "loss of the extensive and valuable cultivation under it, but also "spread a wide and incalculable ruin in the country to the east-"ward." The success of anicut systems in other districts proved how groundless were Captain Caldwell's apprehensions and, in 1855, the construction of a permanent anicut was commenced and in 1857 it was completed. This anicut was partially destroyed in 1874, when 13·75 feet of water passed over the crest, but was immediately restored and has since been much improved.

The Pálár river rises in the Mysore plateau and, including the drainage area of the Ponné river which joins it about 10 miles above the anicut, drains an area of about 4,000 square miles. The supply of water at the anicut is very precarious, the river being

Pálár anicut system.

sometimes in fresh for months at a time and at others practically dry for considerable periods, but in most years the quantity of water reaching the anicut is sufficient to fill the tanks connected with it. Originally all the channels connected with the system were narrow and of irregular breadth and excessive fall, but during the great famine of 1876–77 a considerable expenditure was incurred on widening them, and this work, as well as the construction of drops to reduce the fall, was continued and has only recently been completed. The southern section of the system has also been considerably improved and extended, especially in the southern portion of the Arcot taluk where 21 tanks, which had nominally been connected with the anicut for years, have been given a supply by the construction of the new Kukundi branch from Kalavai main channel. Though all the main channels have been completed, a good deal of work remains to be done on distributaries which, until quite recently, were in a very neglected state. Most of the distributaries in the southern section have recently been put in order and those connected with the Kávérippákkam main (surplus) channel are now in hand, and when the work has been completed there is a reasonable prospect of the system giving a better return. The supply of water in the river being so precarious during the south-west monsoon, large reservoirs are a necessity and it is probable that, in the future, this want will be met by considerably enlarging and improving the Mahéndravádi tank in the northern and Kalavai tank in the southern section of the system besides constructing new storage works elsewhere. If this is done some of the smaller tanks might be abandoned and their beds irrigated. The quantity of water going to waste over the anicut (*vide* statements Nos. 1 and 2) is very considerable during the north-east monsoon when, during the worst year shown in the statement, sufficient water for 8,000 and on the average for 97,000 acres was surplus at the anicut. Even under present circumstances by raising the full supply levels of channels some of this surplus may be utilized. The sanctioned estimate for the system is Rs. 20,82,728, and the expenditure incurred up to the end of 1892–93 amounts to Rs. 19,78,831. The gross area commanded is 294,400 acres, of which 71,998 acres were irrigated in 1892–93, or including second crop 97,395 acres. Statement No. 7 shows the financial results obtained in 1892–93, but the figures are very delusive, as the whole of the revenue due to old irrigation has been deducted, while the cost of maintenance of tanks, on which this large area depends, has been charged to the anicut system. Had a deduction been made from the revenue due to old irrigation at the rate of 8 annas per acre for working expenses, the increase of revenue on the total capital expenditure would have been at

CHAP. X. IRRIGATION.

Pálár anicut system.

the rate of $4\frac{1}{2}$ per cent., which probably represents approximately the result attained in 1892–93 by the construction of the anicut. One defect in the Pálár system is the great distance from the anicut at which many of the component works are situated. This is especially the case with works in the Chingleput district, and it is a question whether tanks in that district should not be given a supplemental supply by the construction of an additional anicut across the river lower down. It is believed that a favourable site could be found somewhere near the Rájákkál channel head; an anicut here would have the additional advantage of supplying the Dúsi tank, a large work irrigating 3,046 acres which is now often inadequately supplied.

The Pálár anicut (crest M.S.L. + 491·10) is 2,656 feet long from wing to wing and has four sets of under-sluices, of with sills at + 482 90 or 8·20 feet below the present crest level. Of these under-sluices 22 are on the north and 20 on the south side. The body wall was originally 5 feet high, but was subsequently raised in 1863 to 7 feet or to + 489·90. At the north end and over the north and south sets of under-sluices this height was again, in 1883, increased to 8·20 feet, the extra height at the north end being given to prevent water at that end passing over the crest at times when full supply could not be obtained on the south side, owing to a set in the river against the north bank above the anicut and the large accumulations of sand in front of the southern head-sluices. In 1893 the remaining length of the anicut was raised by a thin masonry wall, designed to give way clearing heavy rushes, to + 491·10. The river has a very considerable fall, and during floods the anicut is never submerged. During the cyclone of November 1888, water rose to 5 feet on the crest in a few minutes without warning and before the under-sluices which were fitted with needle shutters could be opened. The under-sluices are now being fitted with screw-gearing.

The system consists of 270 tanks, all of which were in existence before the anicut was constructed, though many have since been enlarged and improved. The lands irrigated are situated in the Wálájá and Arcot taluks of the North Arcot district and in the Conjeeveram taluk of the Chingleput district. The northern section has two head-sluices, viz., the Kávérippákkam head-sluice of 18 vents, each 5′ × 5′ with sills at + 482·90 and the Mahéndravádi head-sluice of 3 vents, each 5′ × 5′ with sills at + 482·90 and 6 vents with sills at + 485·40. Originally the Mahéndravádi sluice was constructed with nine vents with sills at + 482·90, as it was intended to supply Mahéndravádi tank and numerous other tanks solely by means of this channel. Owing,

however, to the rocky nature of the soil in which the channel was excavated, it was never cut to the full section: the supply to the tanks commanded being supplemented from the Kávérippákkam tank by the Ponnapantángal sluices. Six of the 9 vents in the head-sluice were, therefore, closed altogether, but have since been converted into high level vents to draw off water from the river, during freshes, without admitting large quantities of sand into the channel.

Pálár anicut system.

On the south side of the river there are two head-sluices, viz., the Sakkirimallúr of two vents, each 5′ × 5′ with sills 6 feet below anicut crest, and the south main head-sluice of 15 vents, each 5′ × 5′ with sills 5 feet below crest. The sills of the sluices on this side of the river were, subsequent to their original construction, raised higher than those on the north side to prevent, to some extent, the large accumulations of sand in the river bed being drawn into the channels.

Of the tanks fed from the anicut the principal storage works are the Kávérippákkam and Mahéndravádi on the north side of the river and the Dúsi Mámandúr and Kalavai tanks on the south side. Of these tanks Kávérippákkam is the most important, but the Mahéndravádi and Kalavai tanks are capable of being considerably enlarged and improved without any very great expense. Dúsi Mámandúr tank has also a separate channel from the river called Rájákkál, but does not receive much supply from this source owing to the river bed having scored out below the level of the head-sluice. A wall or platform across the bed of the river would much improve the supply and could be constructed at small cost.

The Ponné (Poiney) anicut system.

The Ponné anicut was built in 1853 and is of much the same design as the Pálár anicut. It is 792 feet long from wing to wing and has two sets of under-sluices—one on the north and one on the south side—with sills 6 feet below crest level. This anicut was breached in 1874 by the same flood which breached the Pálár anicut and was reconstructed. During the cyclone of 1888, water rose to 8·50 feet on crest and the wings were overtopped for a short time. The wings were subsequently raised and the under-sluices fitted with screw-gearing, as, during floods, it was found impossible to work the needle shutters until then in use.

The Ponné river rises in the North Arcot district and above the anicut has a drainage area of 666 square miles. It has a much more supply than the Pálár during the south-west monsoon as can be seen from statements 3 and 4. It has a great fall and during a maximum flood the anicut is not submerged.

The eastern head-sluice supplies tanks in the Wálájá taluk, and has nine vents, each 4′ × 4′ with sills 6 feet below anicut

CHAP. X. IRRIGATION.

The Ponné (Poiney) anicut system.

crest. The main channel is 7½ miles long and then divides into two branches, viz., the Sholinghur and Kódakal channels. At about 3 miles below the head, at the division sluices, the southern or Sarpantángal channel takes off. The western head-sluice has four vents 4′ × 4′, only two of which are in use, as the full number are not required for the supply of the few tanks connected with it which are situated in the Chittoor and Gudiyáttam taluks.

The supply from the Ponné might doubtless be still further extended during the north-east monsoon, especially to tanks to the north of Arkonam if the storage capacity is increased. During the south-west monsoon, however, in ordinary years, no supply can be spared for any extension, as water which passes the Ponné anicut must be sent down to the Pálár anicut where the supply is often deficient. The anicut has been recently raised by a small crest wall with the view of increasing the supply, especially in the Eastern channel, and an investigation as to how best to still further increase this supply is now, it is believed, in hand. From the statement No. 4, it appears that in the worst year for which details are given water sufficient for 6,000, and on the average for 25,000 acres was surplus at the anicut. The gross area commanded by the system is 83,200 acres, of which 27,900 were irrigated in 1892–93, 21,939 acres being the first crop area. The expenditure to end of 1892–93 amounted to only Rs. 2,25,142, the small amount being due to the existing surplus channels from tanks having been utilized as distributaries. The return of 12 per cent. would be considerably increased, if a contribution from revenue due to old irrigation were made for working expenses. As in the Pálár system, the cost of maintenance of tanks from which this old irrigation revenue is derived, and which would otherwise have had to be maintained from other funds, has been thrown on the anicut system.

The Cheyár anicut system.

The Cheyár anicut was built in 1856 across the river of that name at a point about 5 miles below where it enters the Wandiwash taluk. The river rises in the Salem district and has a drainage area above the anicut of 682 square miles. The gross area commanded by the anicut is 70,400 acres, of which 34,338 were irrigated in 1892–93, the first crop area being 20,574 acres. The anicut is 315 feet long from wing to wing and carries a bridge of nine arches of 26 feet and six arches of 15 feet span. It has 12 under-vents fitted with screw-gearing. There is only one main channel on the south side which supplies tanks in Wandiwash taluk. The head-sluice has seven vents, each 5′ 0″ × 7′ 6″ and fitted with screw-gearing. The main channel has recently been much improved and widened, as in its previous contracted state near the

head it was impossible to take full advantage of the freshes in the river. More recently an estimate has been sanctioned for raising the anicut by 2 feet to allow of a considerably increased supply in the main channel when water is available. Without increased storage, however, to impound some of the surplus of the north-east monsoon, full use cannot be made of the improvements now under execution. An enlargement of the head-sluice will probably be eventually found necessary. The sanctioned estimate amounts to Rs. 2,34,575 and the expenditure to Rs. 2,39,106. The whole system has been in a somewhat neglected state for many years and requires thorough overhauling.

The Cheyár anicut system.

The return of 3·76 per cent. on the capital outlay would be considerably increased if a contribution towards the maintenance of tanks were made from other funds. As in the Pálár and Ponné systems the whole of the old irrigation revenue is deducted and the cost of maintenance of the tanks on which this irrigation depends is thrown on the system. The Cheyár river has a precarious supply during the south-west monsoon, but a plentiful supply of water during the north-east monsoon, of which at present a large proportion, sufficient during the worst year, shown in the statement No. 6 for 4,000, and on the average for 28,000 acres flows, for the great part, uselessly to the sea. The system is capable of much improvement.

Tanks.

The number of tanks in the Government taluks is given in the report on the new settlement as 2,878, but this figure apparently does not include petty tanks. These seem to have been classed as 'other minor sources' and number 625. The best tanks are those, like Kávérippákkam, which are fed from the anicuts. Then come tanks supplied from river channels diverted by temporary dams; and lastly the rain-fed tanks. The latter vary considerably as to the reliance which can be placed on their supply and many of them are mere shallow basins with a very restricted drainage area.

Channels.

There are 439 river channels used for irrigation, the water being taken to the fields either by direct flow, or more frequently raised by *picottah*. These river channels are particularly numerous in Chittoor, which contains 172 of the total number.

Of channels taking their origin in springs there are 323, of which number 106 are found in Gudiyáttam and 72 in Chendragiri. These channels with the exception of the construction and repair of masonry works are maintained by the ryots.

Wells.

There are no less than 91,409 wells in the Government taluks, the number having increased considerably in recent years. Of the total number, 42,263 merely supplement other sources of irrigation, but the remaining 49,146 are independent works. The value of

CHAP. X. IRRIGATION.

Wells.

wells in a district like this, with a precarious rainfall, is very great, for by their means wet crops can often be saved during droughts which would otherwise have been fatal. This fact is fully recognised by the Government, and in the past few years considerable sums have been advanced as loans to ryots to enable them to construct new wells or repair old ones. These advances are made under the Land Improvement Loans Act, and on the 31st December 1893 they amounted to Rs. 5,22,271. The greater part of this sum was paid to ryots in the Wandiwash and Pólúr taluks, the former receiving Rs. 2,65,522 and the latter Rs. 1,12,033. Nearly the whole of these loans were made in the years 1891–92 and 1892–93 when there was considerable distress in various parts of the district and especially in these two taluks.

The number of wells in each taluk is shown in the following statement. The figures are those for *fasli* 1302 :—

Statement showing the number of Irrigation wells in the District of North Arcot for fasli 1302.

Taluks.	Wells having independent ayacuts.			Total.	Wells supplementing irrigation from registered sources.	Grand total.
	Government.	Private.	Dasabandam.			
Arcot	...	2,346	...	**2,346**	6,004	**8,350**
Chendragiri ...	21	...	20	**41**	4,854	**4,895**
Chittoor	7	10,193	69	**10,269**	4,197	**14,466**
Gudiyáttam ...	...	9,876	...	**9,876**	2,627	**12,503**
Palmanér ...	...	661	3	**664**	1,977	**2,641**
Pólúr	...	6,116	...	**6,116**	5,096	**11,212**
Vellore	36	9,548	...	**9,584**	4,123	**13,707**
Wálájá	22	7,587	...	**7,609**	5,296	**12,905**
Wandiwash ...	...	2,641	...	**2,641**	8,089	**10,730**
TOTAL ...	**86**	**48,968**	**92**	**49,146**	**42,263**	**91,409**

Area irrigated.

The area of *ryotwári* and minor *inám* lands irrigated in 1892–93 was 380,863 acres, or 41·98 per cent., of the land cultivated. Of this extent, 236,602 acres, or 62·12 per cent., were irrigated from tanks, 79,398 acres, or 20·85 per cent., from wells and 59,083 acres, or 15·51 per cent., from Government canals. The details for each taluk are given in the following table. No trustworthy information is available for *zemindári* lands :—

Area of Ryotwári and Minor Inám lands irrigated in 1892–93.

Taluks.	Area irrigated from					
	Government canals.	Private canals.	Tanks.	Wells.	Other sources.	Total.
	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.	ACRES.
Arcot	11,541	...	52.978	2,202	575	67,296
Chendragiri	3,700	438	4,249	5,013	73	13,473
Chittoor	9,099	70	29,617	25,506	337	64,629
Gudiyáttam	15,339	...	10,018	...	1,735	27,092
Palmanér	217	23	10,659	368	760	12,027
Pólúr	1,474	...	26,890	2,406	263	31,033
Vellore	7,725	...	9,347	19,282	470	36,824
Wálájá	9,075	43	44,606	15,992	601	70,317
Wandiwash	913	...	48,238	8,629	392	58,172
TOTAL ...	59,083	574	236,602	79,398	5,206	380,863

Maintenance of irrigation works.

It seems to have always been the duty of the Government to keep the tanks in order, but the ryots had to find the labour (*kudimarámat*). During the Nawabs' Government they were greatly neglected, and in 1803, upon the urgent representations of the Collector, a good deal was done towards repairing the accumulated neglect of years, but even in 1812 it was reported that at least five and-a-quarter lakhs were still needed to put all irrigation works into fair order. During the village leases the duty of repairing tanks and channels was imposed upon the village lessees, but it was found that they did not comply with this condition of their engagement. In 1813 an officer styled the Superintendent of Tank Repairs was appointed to North Arcot, with two or three of the neighbouring districts. He reported in 1814 that most of the tanks in the district were in a most dilapidated condition, having had but little expended upon them. The amounts which had been spent were given as:

Fasli.	RS.	Fasli.	RS.
1211	2,513	1217	43,715
1212	15,320	1218	28,564
1213	3,395	1219	31,510
1214	5,520	1220	40.652
1215	6,030	1221	30,762
1216	17,423	1222	6,888

The Superintendent of Tank Repairs submitted a very large number of estimates [1] and a good deal seems to have been done

[1] The rates quoted in 1814 were—

	RS. A. P.	
Earthwork	3 8 0 per	100 cubic yards.
Rough stone work	0 1 4 per	100 cubic feet.
Brick-in-chunam	0 2 8 per	100 do.
Bricks	1 8 0 per	1,000 do.

CHAP. X. IRRIGATION.

Maintenance of irrigation works.

by him and Revenue officers in subsequent years, but the extensive range allotted to him prevented his undertaking very much work; and as the Revenue Department could not well superintend extensive repairs, their operations were confined to works which, without repair, would cause serious loss of revenue to Government. To obviate these inconveniences the appointment of an Assistant Surveyor to make estimates, measure up work and pay workmen, was in 1818 proposed by the Collector and sanctioned. The farming of contracts was still left to Tahsildars under the supervision of the Collector.

Under the rules now in force, all the tanks fed by the anicut systems, and such other tanks as supply an area of not less than 200 acres, are in charge of the Public Works Department. The establishment consists of an Executive Engineer with head-quarters at Vellore, an Assistant Engineer stationed at Ranipet, and a staff of upper and lower subordinates. The smaller tanks are maintained by the Revenue Department, each Tahsildar being required to prepare and submit estimates for the repairs required in his taluk. The expenditure by these officers for the last five years is shown in the margin, but this sum does not represent the total amount spent on this class of works, as a considerable expenditure has been incurred on them in the Public Works Department also. In addition to the ordinary Revenue and Public Works establishments, a special party now in charge of an upper subordinate is employed in the district under the Tank Restoration scheme to fully investigate and prepare estimates for the repair of all minor works for which Capital and Revenue accounts are not kept.

Minor Irrigation Works.

Years.	Expenditure.
	RS.
1888-89	47,148
1889-90	44,595
1890-91	52,581
1891-92	73,957
1892-93	70,268

This party has investigated 920 square miles of country in the Tiruttani and Ponné anicut eastern minor basins of the Madras basin and in the Vellore minor basin of the Pálár basin, and estimates for the repair of 330 tanks and channels to the extent of Rs. 4,35,008 have been sanctioned. When the investigation has been completed and all the irrigation works properly grouped and reported on, the introduction of some system, whereby tanks and channels which have been put into thorough order at great cost may be sufficiently maintained, will be an urgent necessity. The investigation in the Tank Restoration scheme being limited to the repair of existing works, and the preparation of estimates for new projects and extensive improvements being considered to be outside its scope, much will still remain to be done. The district,

CHAP. X. IRRIGATION.

Maintenance of irrigation works.

owing to the hilly nature of the country and abundant rainfall near the hills, affords facilities for the construction of large reservoirs to supplement the precarious supply in the rivers and tanks in the plains and would well repay a thorough investigation. Many of these works might not prove directly remunerative, but would make excellent works to execute as insurances against famine or to employ famine labour on.

The constant change of Executive officers in the Public Works Department is a serious hindrance to any continuous policy being pursued with reference to the many irrigation requirements of the district. This defect could be met if a programme were to be drawn up of such requirements and endorsed by Government. Successive officers could then have something to go by as a guide instead of being now obliged to spend a year or more of their time in getting to know the district and thus probably working on quite different lines to their predecessors, with the result that in the end nothing is done.

There are large quantities of water flowing waste to the sea, especially during the north-east monsoon, part of which, if stored, would be invaluable, especially in the eastern parts of the district in the Wálájá, Arcot and Wandiwash taluks which are, under present circumstances, very inadequately supplied and where there is often failure and loss if not to Government directly, yet certainly to the ryots and land-owners.

CHAP. X.
IRRIGATION.

Pálár Anicut Statistics.

Statement No. 1 showing the number of days water was at or over the following heights on the gauge at the Pálár Anicut.

Years.	South-west monsoon. Total for the months of June, July and August. Number of days water was at or over													
	1	2	3	4	5	6	7	8	9	10	11	12	13	Number of days vents open.
1864	6	6	2	...	...	...	...	...	...	...	...	...	...	...
1865	23	22	19	9	3	2	1	...	...	...	...	...	...	...
1866	4	2	...	...	...	...	...	...	...	...	...	...	...	...
1867	No returns.													
1868	1	1	...	...	...	...	...	...	...	...	...	...	...	...
1869	25	22	13	4	1	1	...	...	...	...	...	...	...	...
1870	9	8	3	1	...	...	...	...	...	...	...	...	...	...
1871	3	3	2	1	...	...	...	...	...	...	...	...	...	...
1872	28	26	20	9	5	1	...	...	...	...	...	...	...	...
1873	1	1	...	...	...	...	...	...	...	...	...	...	...	...
AVERAGE ...	11	10	7	3	1	...	...	...	...	...	...	...	...	...
1874	61	56	36	28	19	13	9	4	...	...	...	...	...	...
1875	16	6	3	1	...	...	...	...	...	...	...	...	...	16
1876	5	3	2	...	...	...	...	...	...	...	...	...	...	...
1877	No water.													
1878	27	27	25	16	10	8	8	5	1	...	...	...	...	...
1879	15	15	15	15	6	1	...	...	...	...	...	...	...	...
1880	No water.													
1881	3	3	3	3	3	3	1	...	...	...	...	...	...	...
1882	5	5	5	5	3	2	1	...	...	...	...	...	...	...
1883	3	3	3	2	...	...	...	...	...	...	...	...	...	...
AVERAGE ...	17	15	12	9	5	3	2	1	...	...	...	...	...	2
AVERAGE, 20 YEARS.	14	13	10	6	3	2	1	1	...	...	...	...	...	1
1884	1	1	...	...	...	...	...	...	...	...	...	...	...	...
1885	No water.													
1886	60	54	29	17	14	11	6	3	...	...	...	...	...	39
1887	No water.													
1888	7	4	2	1	...	...	...	...	...	...	...	...	...	7
1889	5	4	3	2	2	2	...	...	...	...	...	...	...	7

NOTE.—The figures show feet on gauge, the zero of which is 8·20 feet below anicut crest.

Pálár Anicut Statistics.

Statement No. 1 *showing the number of days water was at or over the following heights on the gauge at the Pálár Anicut*—cont.

Years.	North-east monsoon. Total for the months of September, October, November and December. Number of days water was at or over													
	1	2	3	4	5	6	7	8	9	10	11	12	13	Number of days vents open.
1864	40	29	18	9	8	6	5	3	1	1	...	...	...	...
1865	14	10	7	7	7	6	4	3	...	...	...	...	...	...
1866	36	29	18	12	7	8	3	...	...	...	...	...	...	...
1867	No returns.													
1868	35	30	18	13	7	4	3	...	...	...	...	...	...	...
1869	51	36	21	7	4	1	...	...	...	...	...	...	...	...
1870	66	52	30	15	12	11	8	5	3	1	...	...	...	...
1871	91	73	51	39	28	26	23	16	7	1	1	...	...	...
1872	98	88	68	57	42	33	23	13	3	1	1	...	...	...
1873	79	75	65	57	49	34	28	16	5	1	...	...	...	...
Average ...	**57**	**47**	**33**	**24**	**18**	**14**	**11**	**6**	**2**	**1**	...	...	...	...
1874	82	72	66	56	54	45	43	35	17	7	2	1	...	53
1875	20	16	8	1	...	...	...	...	...	...	...	...	...	15
1876	No water.													
1877	69	69	65	56	45	34	28	19	7	1	...	...	...	57
1878	101	101	100	87	59	54	47	31	9	...	...	...	...	68
1879	35	35	35	35	14	2	1	...	...	...	...	...	...	...
1880	40	40	40	40	28	22	13	6	1	...	...	...	...	9
1881	43	43	43	43	35	25	18	10	3	...	...	...		18
1882	57	57	57	57	22	15	10	10	5	3	1	..	...	21
1883	81	81	81	79	73	52	34	19	4	2	..	..	..	36
Average ...	**59**	**57**	**55**	**50**	**37**	**27**	**22**	**15**	**5**	**1**	...	...	...	**31**
Average, 29 years.	**58**	**52**	**44**	**37**	**28**	**21**	**17**	**11**	**4**	**1**	...	...	...	**16**
1884	75	75	75	75	52	40	28	13	4	3	1	1	...	35
1885	40	40	40	37	16	9	6	1	...	...	...	...	...	6
1886	91	91	89	74	40	26	13	2	...	...	...	...	...	15
1887	68	68	68	66	54	41	36	6	3	...	...	...	...	34
1888	97	97	97	88	62	48	34	12	3	1	...	...	...	30
1889	84	84	84	83	71	52	37	17	7	...	...	...	...	33

NOTE.—The figures show feet on gauge, the zero of which is 8·20 feet below anicut crest.

CHAP. X.
IRRIGATION.

Pálár Anicut Statistics.

***Statement No.* 1 *showing the number of days water was at or over the following heights on the gauge at the Pálár Anicut*—cont.**

Years.	Total for the two seasons. June to December inclusive. Number of days water was at or over													
	1	2	3	4	5	6	7	8	9	10	11	12	13	Number of days vents open.
1864 ...	46	35	20	9	8	6	5	3	1	1	...	...	...	...
1865 ...	37	32	26	16	10	8	5	3	...	...	...	...	...	...
1866 ...	40	31	18	12	9	8	3	...	...	...	...	...	...	...
1867 ...	No returns.													
1868 ...	36	31	18	13	7	4	3	...	...	...	...	...	...	...
1869 ...	76	58	34	11	5	2	...	...	...	...	...	...	...	...
1870 ...	75	60	33	16	12	11	8	5	3	1	...	...	...	...
1871 ...	94	76	53	40	28	26	23	16	7	1	1	...	...	...
1872 ...	126	114	88	66	47	34	23	13	3	1	1	...	...	...
1873 ...	80	76	65	57	49	34	28	16	5	1	...	...	...	...
AVERAGE.	**68**	**57**	**40**	**27**	**16**	**14**	**11**	**6**	**2**	**1**	...	...	...	...
1874 ...	143	128	102	84	73	58	52	39	17	7	1	1	...	53
1875 ...	36	22	11	2	...	...	...	...	...	...	...	...	...	34
1876 ...	5	3	2	...	...	...	...	...	...	...	...	...	...	...
1877 ...	69	69	65	56	45	34	28	19	7	1	...	...	...	57
1878 ...	128	128	125	103	69	62	55	36	10	...	...	...	...	68
1879 ...	50	50	50	50	20	3	1	...	...	...	...	...	...	...
1880 ...	40	40	40	40	28	22	13	6	1	...	...	...	...	9
1881 ...	46	46	46	46	38	28	19	10	3	...	...	...	...	18
1882 ...	62	62	62	62	25	17	11	10	5	3	1	...	...	21
1883 ...	84	84	84	81	73	52	34	19	4	2	...	...	...	36
AVERAGE.	**76**	**72**	**67**	**59**	**42**	**30**	**24**	**16**	**5**	**1**	...	...		**33**
AVERAGE, 20 YEARS.	**72**	**65**	**54**	**43**	**31**	**23**	**18**	**12**	**4**	**1**	...	...	...	**17**
1884 ...	76	76	75	75	52	40	28	13	4	3	1	1	..	16
1885 ...	40	40	40	37	16	9	6	1	..	...	...	...	..	6
1886 ...	151	145	118	91	54	37	19	5	...	...	...	...	..	54
1887 ...	68	68	68	66	54	41	36	6	3	...	...	...	.	34
1888 ...	104	101	99	89	62	48	34	12	3	1	...	...	..	37
1889 ...	89	88	87	85	73	54	37	17	7	...	...	...	...	40

Pálár Anicut Statistics.

Statement No. 1 *showing the number of days water was at or over the following heights on the gauge at the Pálár Anicut*—cont.

Years.	Height of maximum flood of the year. Date.	Height above crest.	Remarks.
		FT. DECLS.	
1864	29th November ...	10·00	Up to August 1874 the readings were taken at the Kávérippákkam sluice gauge which has the same zero as the present anicut gauge. The number of under-vents open was not noted until September 1874. Crest of anicut = M.S.L + 491·10. Zero of gauge = 482·90.
1865	5th December ...	9·50	
1866	25th September ...	8·50	
1867	No returns.		
1868	9th September ...	7·17	
1869	10th August	5·50	
1870	20th October ...	10·00	
1871	8th November ...	10·50	
1872	2nd May	13·50	
1873	15th October	10·00	
AVERAGE ...	......	...	
1874	25th October ...	13·75	
1875	11th August ...	7·25	
1876	3rd do. ..	3·41	
1877	4th November ...	10·17	
1878	6th September ..	9·50	
1879	8th October ...	7·08	
1880	22nd November ...	10·00	
1881	3rd October ..	9·40	
1882	30th November ...	11·50	
1883	3rd do. ..	10·60	
AVERAGE ...	......	...	
AVERAGE, 20 YEARS.	......	...	
1884	18th December ...	11·80	
1885	18th November ...	8·20	
1886	8th August ...	8·40	
1887	29th December ...	9·50	
1888	1st November	12·10	On North side.
		11·10	On South side.
1889	14th October ...	9·60	On North side gauge.

Statement No. 2 showing the quantity of water that passed over the Pálár Anicut in millions of cubic feet.

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1882	...	...	...	...	...	...	...	65·00	...	...	19,702·00	21,657·00	**41,424·00**
1883	...	...	...	...	...	...	...	...	...	3,860·62	21,611·97	9,038·66	**37,511·25**
1884	353·71	...	...	...	...	...	...	...	...	3,030·44	7,846·10	30,341·19	**41,571·44**
1885	331·69	...	...	...	...	...	...	...	...	...	1,785·69	754·48	**2,871·86**
1886	...	...	...	...	14·98	698·37	790·27	1,991·42	1,773·48	653·38	1,932·89	...	**7,854·79**
1887	...	...	...	...	...	...	...	...	...	324·37	5,544·68	10,560·26	**16,429·31**
1888	1,412·96	...	...	...	552·77	...	...	244·42	325·90	721·11	24,371·46	131·00	**27,759·62**
1889	...	...	...	...	...	...	...	989·41	1,724·25	27,430·09	...	...	**30,143·75**
1890	...	...	...	...	...	...	4·41	17·12	516·62	114·64	3,606·90	...	**4,259·69**
1891	...	...	...	...	...	...	...	...	...	1,737·52	...	...	**1,737·52**
TOTAL ...	**2,098·36**	...	...	...	**567·75**	**698·37**	**794·68**	**3,307·37**	**4,340·25**	**37,872·17**	**89,401·69**	**72,482·59**	**211,563·23**
AVERAGE ...	...	...	...	...	...	...	...	...	...	...	...	...	**21,156·32**

NOTE.—From these figures it appears that in the worst year of the series sufficient water for 8,000 acres passed the anicut and on the average for 97,000 acres. The figures are approximate and probably are considerably less than the actual.

The area irrigated in 1892-93 = 97,395 acres.

Ponné Anicut Statistics.

Statement No. 3 showing the number of days water was at or over the following heights on the gauge at the Ponné (Poiney) Anicut.

Years.	South-west monsoon. Total for the months of June, July and August. Number of days water was at or over													
	1	2	3	4	5	6	7	8	9	10	11	12	13	Number of days vents open.
1868	5	3	3	1	1	1	1	...	...	...	...	...	...	...
1869	6	6	3	1	1	1	1	...	...	...	...	...	...	...
1870	24	21	9	5	4	3	2	...	...	...	...	...	...	...
1871	14	12	9	5	3	2	2	1	1	...	...	...	...	...
1872	39	35	26	16	11	8	2	...	...	...	...	...	...	6
1873	14	10	6	2	1	...	...	...	...	...	...	...	...	...
1874	86	53	38	19	13	11	7	...	...	...	...	...	...	6
1875	28	21	9	5	2	...	...	...	...	...	...	...	...	16
1876	5	2	...	...	...	...	...	...	...	...	...	...	...	...
1877	2	1	...	...	...	...	...	...	...	...	...	...	...	...
AVERAGE, 1868 TO 1877.	**22**	**16**	**10**	**5**	**4**	**3**	**2**	...	...	...	...	...	...	**3**
1878	44	38	28	14	11	9	3	1	...	...	...	...	...	5
1879	31	25	22	2	4	1	1	...	...	...	...	...	...	1
1880	10	4	2	1	1	1	...	...	...	...	...	...	...	...
1881	11	11	11	7	3	2	1	1	...	...	...	...	...	3
1882	4	4	1	...	...	...	...	...	...	...	...	...	...	...
1883	6	6	2	2	1	...	...	...	...	...	...	...	...	2
1884	15	7	3	3	2	2	1	1	...	...	...	...	...	11
1885	16	16	16	11	2	1	...	...	...	...	...	...	...	1
1886	65	65	65	21	8	2	1	...	...	...	...	...	...	10
1887	2	1	...	...	...	...	...	...	...	...	...	...	...	2
1888	5	1	...	...	...	...	...	...	...	...	...	...	...	5
1889	6	2	1	...	...	...	...	...	...	...	...	...	...	5
AVERAGE, 1878 TO 1889.	**18**	**15**	**13**	**5**	**3**	**2**	**1**	...	...	...	...	...	...	**4**
AVERAGE FOR 22 YEARS.	**20**	**16**	**12**	**5**	**3**	**2**	**1**	...	...	...	...	...	...	**4**

NOTE.—Zero of gauge = 6 feet below anicut crest = sill of head-sluice.

CHAP. X.
IRRIGATION.
Ponné Anicut Statistics.

Statement No. 3 showing the number of days water was at or over the following heights on the gauge at the Ponné (Poiney) Anicut—cont.

Years.	North-east monsoon. Total for the months of September, October, November and December. Number of days water was at or over													
	1	2	3	4	5	6	7	8	9	10	11	12	13	Number of days vents open.
1868	23	4	7	2	2	2	1	...	...	...	...	...	...	...
1869	26	19	9	5	2	...	...	...	...	...	...	...	...	...
1870	92	66	29	18	13	11	7	5	3	1	1	...	...	...
1871	105	87	79	51	36	27	20	9	7	3	2	1	..	33
1872	99	92	81	50	41	21	13	4	1	1	...	...	...	57
1873	96	54	49	37	29	13	6	3	2	...	...	...	...	19
1874	121	86	63	57	45	33	22	11	4	1	...	...	...	109
1875	79	23	11	4	...	...	...	...	...	...	...	...	..	27
1876	5	2	...	...	...	...	...	...	...	...	...	...	..	...
1877	109	91	56	44	36	25	12	4	2	...	...	...	...	21
AVERAGE, 1868 TO 1877.	76	52	38	27	20	13	8	4	2	...	...	...	...	27
1878	122	99	76	62	49	35	25	8	3	1	...	...	...	47
1879	64	48	37	27	9	2	2	1	...	...	...	...	...	2
1880	70	65	62	36	15	13	5	3	1	1	...	...	...	...
1881	105	105	104	82	24	13	7	1	1	...	...	...	...	31
1882	72	68	52	35	27	24	19	5	3	1	1	...	...	17
1883	100	95	95	71	34	38	14	4	1	...	...	...	...	48
1884	84	84	76	50	36	23	14	3	1	...	...	..	...	38
1885	58	58	58	42	13	9	2	...	...	...	...	...	...	10
1886	108	85	78	63	17	7	2	...	...	...		...	...	17
1887	88	84	61	19	11	4	2	...	...	...		...	...	24
1888	90	52	24	18	15	8	4	1	1	..	...	...	...	44
1889	100	64	35	25	17	10	...	...	...	...	..	...	..	42
AVERAGE, 1878 TO 1889.	89	76	63	44	22	16	8	2	1	...	...	...	...	27
AVERAGE FOR 22 YEARS.	83	65	52	36	21	14	8	3	2	...	...	...	...	27

NOTE.—Zero of gauge = 6 feet below anicut crest = sill of head-sluice.

Statement No. 3 showing the number of days water was at or over the following heights on the gauge at the Ponné (Poiney) Anicut—cont.

CHAP. X.
IRRIGATION.

Ponné Anicut Statistics.

Years.	Total for the season. June to December inclusive. Number of days water was at or over.													
	1	2	3	4	5	6	7	8	9	10	11	12	13	Number of days vents open.
1868 ...	28	7	10	3	3	3	2	...	...	...	...	...	...	...
1869 ...	32	25	12	6	3	1	1	...	...	...	...	...	...	...
1870 ...	116	87	38	23	17	14	9	5	3	1	1	...	...	...
1871 ...	119	99	88	56	39	29	22	10	8	3	2	1	...	33
1872 ...	138	127	107	66	52	29	15	4	1	1	...	...	...	63
1873 ...	110	64	55	39	30	13	6	3	2	...	...	...	...	19
1874 ...	207	139	101	76	58	44	29	11	4	1	...	...	...	115
1875 ...	107	44	19	9	2	...	...	...	...	...	...	...	..	43
1876 ...	10	4	...	...	...	...	...	...	...	...	...	...	...	...
1877 ...	111	92	56	44	36	25	12	4	2	...	...	...	...	21
AVERAGE, 1868 TO 1877.	**98**	**69**	**48**	**32**	**24**	**16**	**10**	**4**	**2**	...	...	...	...	**30**
1878 ...	166	137	104	76	60	44	28	9	3	1	...	...	...	52
1879 ...	95	73	59	29	13	3	3	1	...	...	...	...	...	3
1880 ...	80	69	64	37	16	14	5	3	1	1	...	...	...	...
1881 ...	116	116	115	89	27	15	8	2	1	...	...	...	...	34
1882 ...	76	72	53	35	27	24	19	5	3	1	1	...	...	17
1883 ...	106	101	97	73	35	38	14	4	1	...	...	...	...	50
1884 ...	99	91	79	53	38	25	15	4	1	...	...	...	...	49
1885 ...	74	74	74	53	15	10	2	...	...	...	...	...	...	11
1886 ...	173	150	143	84	25	9	3	...	...	...	...	...	...	27
1887 ...	90	85	61	19	11	4	2	...	...	...	...	...	...	26
1888 ...	95	53	24	18	15	8	4	1	1	...	...	...	...	49
1889 ...	106	66	36	25	17	19	...	...	...	...	...	...	...	47
AVERAGE, 1878 TO 1889.	**106**	**90**	**76**	**49**	**25**	**17**	**9**	**2**	**1**	...	..	...	...	**30**
AVERAGE FOR 22 YEARS.	**102**	**81**	**63**	**42**	**29**	**16**	**9**	**3**	**1**	...	...	...	.	**30**

CHAP. X. IRRIGATION.

Ponné Anicut Statistics.

Statement No. 3 showing the number of days water was at or over the following heights on the gauge at the Ponné (Poiney) Anicut—cont.

Years.	Height of maximum flood of the year.		Remarks.
	Date.	Height above crest.	
		FT. DECLS.	
1868	......	......	
1869	......	......	
1870	......	......	
1871	......	......	
1872	......	......	
1873	......	......	
1874	......	......	Anicut was destroyed in 1874 and rebuilt in 1875.
1875	......	......	
1876	......	......	
1877	......	......	
AVERAGE, 1868 TO 1877.	......	......	
1878	......	......	
1879	......	......	
1880	November ...	4·37	
1881	......	......	
1882	November ...	5·5	
1883	3rd do. ...	2·70	
1884	......	......	
1885	18th November ...	2·20	
1886	8th August ...	1·60	
1887	27th December ...	1·45	
1888	1st November ...	8·50	
1889	......	......	
AVERAGE, 1878 TO 1889.	......	......	
AVERAGE FOR 22 YEARS.	......	......	

Statement No. 4 showing the quantity of water that passed over the Ponné (Poiney) Anicut in millions of cubic feet.

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1882	...	...	...	...	...	...	...	...	198·00	77·00	7,132·00	2,950·00	**10,357·00**
1883	...	...	...	...	...	...	...	71·68	597·38	2,179·17	5,844·86	2,115·82	**10,808·91**
1884	...	...	...	18·08	...	32·14	262·75	14·17	8·70	2,282·44	2,185·80	4,291·34	**9,095·42**
1885	...	...	...	...	...	15·43	...	...	...	14·25	978·72	1,701·51	**2,709·91**
1886	...	...	...	...	...	...	24·39	630·29	445·91	329·61	538·33	...	**1,968·53**
1887	...	...	...	...	...	...	35·97	...	...	27·36	844·75	303·30	**1,211·38**
1888	...	...	...	...	71·82	29·80	...	92·64	267·00	96·02	5,044·36	131·01	**5,732·65**
1889	...	...	...	...	...	...	83·99	210·09	907·53	3,583·56	...	38·96	**4,824·13**
1890	...	...	...	26·44	...	52·03	116·20	162·45	419·99	198·57	2,037·16	...	**3,012·84**
1891	...	...	...	...	...	2·55	...	...	22·95	3,503·93	31·11	...	**8,560·54**
TOTAL ...	...	...	...	**44·52**	**71·82**	**131·95**	**523·30**	**1,181·32**	**2,867·46**	**12,291·91**	**24,637·09**	**11,531·94**	**53,281·31**
AVERAGE ...	...	...	...	...	...	...	...	...	...	...	...	...	**5,328·13**

NOTE.—From these figures it appears that in the worst year of the series sufficient water for 5,600 acres passed the anicut and on the average for 24,600 acres. The figures are approximate and probably are considerably less than the actual.

The area irrigated in 1892–93 = 27,900 acres.

Ponné Anicut Statistics.

CHAP. X.
IRRIGATION.

Cheyár Anicut Statistics.

Statement No. 5 showing the number of days water was at or over the following heights on the gauge at the Cheyár Anicut.

Years.	South-west monsoon. Total of the months of June, July and August. Number of days water was at or over														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1874	40	29	15	7	5	2	1	...	...	...	...	...	...	...	...
1875	29	28	22	14	12	8	7	5	1	...	...	...	...	...	...
1876	6	6	2	...	...	...	...	...	...	...	...	...	...	...	...
1877	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1878	37	37	20	12	6	4	1	1	...	...	...	...	...	...	...
1879	29	29	29	16	12	7	7	5	...	...	...	...	...	...	...
1880	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1881	26	13	8	5	4	1	...	...	...	...	...	...	...	...	...
1882	8	8	8	4	4	4	3	2	...	...	...	...	...	...	...
1883	60	60	18	10	7	2	1	...	...	...	...	...	...	...	...
AVERAGE, 1874 TO 1883.	**23**	**21**	**12**	**7**	**5**	**3**	**2**	**1**	...	...	...	...	...	...	...
1884	7	1	1	...	...	...	...	...	...	...	...	...	...	...	...
1885	24	24	7	2	1	...	...	...	...	...	...	...	...	...	...
1886	84	67	45	27	19	11	8	5	...	...	...	...	...	...	...
1887	24	8	5	1	...	...	...	...	...	...	...	...	...	...	...
1888	34	8	4	3	1	1	...	...	...	...	...	...	...	...	...
1889	60	17	8	7	4	3	3	3	1	...	...	...	...	...	...
AVERAGE, 1884 TO 1889.	**39**	**21**	**12**	**7**	**4**	**2**	**2**	**1**	...	...	...	...	...	...	...
AVERAGE FOR 16 YEARS.	**29**	**21**	**12**	**7**	**5**	**3**	**2**	**1**	...	...	...	...	...	...	...

NOTE.—Zero of gauge = $7\frac{1}{4}$ feet below anicut crest = sill of head-sluice.

Cheyár Anicut Statistics.

Statement No. 5 showing the number of days water was at or over the following heights on the gauge at the Cheyár Anicut—cont.

Years.	North-east monsoon. Total for the months of September, October, November and December. Number of days water was at or over														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	5
1874	106	105	99	72	55	50	38	28	17	10	4	3	2	2	1
1875	91	85	75	49	39	30	25	19	7	3	3	2	...	...	...
1876	11	11	4	3	1	...	...	...	...	...	...	...	...	...	...
1877	112	112	111	92	74	64	56	46	27	13	4	2	1	...	...
1878	122	122	115	60	38	29	22	14	9	3	1	1	...	...	...
1879	97	97	85	20	10	4	3	...	...	...	...	...	...	...	...
1880	99	99	97	44	28	24	18	16	4	2	2	1	1	...	...
1881	119	118	41	17	11	9	7	5	...	...	...	...	...	...	...
1882	122	122	49	23	18	14	13	10	5	3	...	...	...	...	...
1883	102	102	89	60	41	34	31	26	17	7	1	1	1	...	...
AVERAGE, 1874 TO 1883.	**98**	**97**	**76**	**44**	**31**	**26**	**21**	**16**	**9**	**4**	**1**	**1**	...	...	...
1884	95	80	67	51	49	47	44	35	26	15	6	5	5	5	4
1885	121	121	121	95	54	43	39	31	17	7	2	...	...	...	...
1886	122	122	120	50	26	12	4	...	...	...	...	...	...	...	...
1887	104	91	87	75	64	55	39	28	21	12	5	2	2	2	1
1888	122	113	83	57	44	30	8	4	1	...	...	...	...	...	...
1889	122	122	63	44	36	32	30	14	1	...	...	...	...	...	...
AVERAGE, 1884 TO 1889.	**114**	**108**	**90**	**62**	**45**	**36**	**27**	**19**	**11**	**6**	**2**	**1**	**1**	**1**	**1**
AVERAGE FOR 16 YEARS.	**104**	**101**	**82**	**51**	**37**	**30**	**24**	**17**	**9**	**5**	**2**	**1**	**1**	**1**	..

NOTE.—Zero of gauge = $7\frac{1}{2}$ feet below anicut crest = sill of head-sluice.

CHAP. X.
IRRIGATION.

Cheyár Anicut Statistics.

Statement No. 5 showing the number of days water was at or over the following heights on the gauge at the Cheyár Anicut—cont.

Years.	Total for the season. June to December inclusive. Number of days water was at or over														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1874 ...	146	134	114	79	60	52	39	28	17	10	4	3	2	2	1
1875 ...	120	113	97	63	51	38	32	24	8	3	3	2	...	...	...
1876 ...	17	17	6	3	1	...	...	...	...	...	...	...	...	...	
1877 ...	112	112	111	92	74	64	56	46	27	13	4	2	1	...	...
1878 ...	159	159	135	72	44	33	23	15	9	3	1	1	...	...	
1879 ...	126	126	114	36	22	11	10	5	...	...	...	...	...	...	...
1880 ...	99	99	97	44	28	24	18	16	4	2	2	1	1	...	...
1881 ...	145	131	49	22	15	10	7	5	...	...	...	...	...	...	...
1882 ...	130	130	57	27	22	18	16	12	5	3	...	...	...	...	...
1883 ...	162	162	107	70	48	36	32	26	17	7	1	1	1	...	...
AVERAGE, 1874 TO 1883.	**121**	**118**	**88**	**51**	**37**	**28**	**23**	**18**	**9**	**4**	**1**	**·1**	...	...	...
1884 ...	102	81	68	51	49	47	44	35	26	15	6	5	5	5	4
1885 ...	145	145	128	97	55	43	39	31	17	7	2	...	...	...	
1886 ...	206	189	165	77	45	23	12	5	...	...	...	...	...	...	...
1887 ...	128	99	92	76	64	55	39	28	21	12	5	2	2	2	1
1888 ...	156	121	87	60	45	31	8	4	1	...	...	...	...	...	
1889 ...	182	139	71	51	40	35	33	17	2	...	...	...	...		...
AVERAGE, 1884 TO 1889.	**153**	**129**	**102**	**69**	**50**	**39**	**29**	**20**	**11**	**6**	**2**	**1**	**1**	**1**	**1**
AVERAGE FOR 16 YEARS.	**133**	**122**	**94**	**57**	**41**	**32**	**25**	**19**	**10**	**5**	**3**	**1**	**1**	**1**	...

NOTE.—Zero of gauge = 7¼ feet below anicut crest = sill of head-sluice.

CHAP. X.
IRRIGATION.

Cheyár Anicut Statistics.

Statement No. 5 showing the number of days water was at or over the following heights on the gauge at the Cheyár Anicut—cont.

Years.	Height of maximum flood of the year.		Remarks.
	Month and Date.	Height above crest.	
		FT. DECLS.	
1874	25th October ...	15·25	Zero of gauge = $7\frac{1}{4}$ feet below anicut crest = sill of head-sluice.
1875	7th do.	11.55	
1876	26th September ...	5·00	
1877	29th do. ...	12·90	
1878	4th November ..	12·00	
1879	29th August ...	8·50	
1880	22nd November ...	12·60	
1881	1st October ...	8·50	
1882	25th November ...	10·50	
1883	17th October ...	12·60	
AVERAGE, 1874 TO 1883.	......	...	
1884	18th December ...	18·50	
1885	18th November ...	11·00	
1886	11th August ...	8·30	
1887	9th October ...	16·30	
1888	12th September ...	9·50	
1889	1st August ...	9·40	
AVERAGE, 1884 TO 1889.	......	...	
AVERAGE FOR 16 YEARS.	......	...	

Statement No. 6 showing the quantity of water that passed over the Cheyár Anicut in millions of cubic feet.

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1882	...	...	...	...	...	...	...	18·00	...	...	1,750·00	297·00	**2,065·00**
1883	...	...	...	...	...	...	...	...	...	1,790·00	2,258·97	463·96	**4,512·93**
1884	...	...	...	...	...	...	...	...	...	2,627·89	6,790·78	9,429·86	**18,848·53**
1885	532·48	...	...	...	2·05	...	...	...	335·84	1,568·86	1,487·94	2,132·95	**6,060·12**
1886	...	...	...	...	12·00	186·00	70·00	490 00	180·00	256·00	218·00	...	**1,412·00**
1887	...	...	...	...	...	67·91	13·21	...	...	4,364·75	9.837·28	3,475·26	**17,758·41**
1888	454·00	...	...	...	415·00	50·00	...	202·00	365·00	650·00	2,392·00	117·00	**4,645·00**
1889	...	...	...	...	...	34 00	30·00	357·00	553·00	1,641 00	...	94·00	**2,709·00**
1890	...	...	...	...	...	51·18	24·13	...	131·52	274·28	694·52	...	**1,175·63**
1891	3·61	...	...	...	...	...	...	...	83·05	767·39	...	...	**854·05**
TOTAL ...	**990·09**	...	...	...	**429·05**	**389·09**	**137·34**	**1,067·00**	**1,648·41**	**13,940·17**	**25,429·49**	**16,010·03**	**60,040·67**
AVERAGE ...	...	...	...	...	...	...	...	...	...	...	...	...	**6,004·06**

NOTE.—From these figures it appears that in the worst year of the series sufficient water for 4,000 acres passed the anicut and on the average for 27,800 acres. The figures are approximate and probably are considerably less than the actual.

The area irrigated in 1892-93 = 34,338 acres.

Irrigation works. Financial.

Statement No. 7 showing the financial results of Irrigation works in the North Arcot District for 1892–93.

—	Pálár anicut system.	Ponné (Poiney) anicut system.	Cheyár anicut system.	Minor works for which neither Capital nor Revenue accounts are kept, P.W.D.	Minor works, Revenue Department.	Total.
Mileage—						
Main canals ...	28	55	21	...	...	...
Branches	135	49	40	...	...	...
Distributaries ...	127	78	120	...	...	...
Number of—						
Channels	100	5	1	15	318	439
Spring channels ...	...	...	...	...	323	323
Tanks	270	105	141	215	2,147	2,873
Petty tanks ...	...	...	...	...	625	625
Gross area commanded Acres.	294,400	83,200	70,400	...	...	...
Area irrigated, 1st crop, old Acres.	50,554	17,449	15,321	...	...	...
Area irrigated, 1st crop, new Acres.	21,444	4,490	5,253	...	...	...
TOTAL ...	**71,998**	**21,939**	**20,574**	**53,771**	**167,303**	**335,585**
Area irrigated, 2nd crop, old Acres.	15,377	2,354	1,734	...	...	...
Area irrigated, 2nd crop, new Acres.	10,020	3,607	12,030	...	...	...
TOTAL ...	**25,397**	**5,961**	**13,764**	**24,384**	**83,041**	**152,547**
Total, 1st and 2nd crops Acres.	97,395	27,900	34,338	78,155	250,344	**438,132**
Irrigation revenue Rs.	2,48,056	86,335	80,351	2,16,302	6,29,942	**12,61,006**
Enhanced share of land revenue Rs.	15,684	4,923	3,259	...	...	**23,866**
Receipts in the Public Works Department Rs.	1,217	476	173	538	...	**2,404**
TOTAL ...	**2,64,957**	**91,754**	**83,783**	**2,16,840**	**6,29,942**	**12,87,276**
Deduct revenue due to old irrigation Rs.	1,25,000	43,490	39,259	...	...	...
Revenue due to each system Rs.	1,39,957	48,264	44,524	2,16,840	...	...
Working expenses—						
Extensions and improvements Rs.	19,153	7,587	7,510	40,187	1,343	**75,780**
Maintenance and repairs Rs. ...	43,034	6,611	18,860	82,721	68,356	**2,19,582**
Establishment Rs.	14,425	3,302	6,082	30,159	534	**54,502**

CHAP. X.
IRRIGATION.

Iirrigation works Financial.

Statement No. 7 showing the financial results of Irrigation works in the North Arcot District for 1892–93—cont.

—	Pálár anicut system.	Ponné (Poiney) anicut system.	Cheyár anicut system.	Minor works for which neither Capital nor Revenue accounts are kept, P.W.D.	Minor works, Revenue Department.	Total.
Working expenses—*cont.*						
Tools and plant Rs.	35	...	...	1,819	35	**1,889**
Indirect charges ,,	2,019	465	852	3,222	...	**7,558**
Collection charges Rs.	6,939	2,389	2,217	10,815	31,497	**56,613**
TOTAL ...	**85,605**	**20,354**	*** 35,521**	**† 1,69,923**	**1,01,765**	**4,15,924**
Deduct old maintenance charges Rs.	3,900	...	...	...	...	...
Net working expenses Rs.	81,705	20,354	35,521	1,69,923	1,01,765	...
Net revenue ,,	58,252	27,910	9,003	46,917	5,28,177	8,71,352
Total Capital outlay to end of 1892–93 including indirect charges Rs.	19,78,831	2,25,142	2,39,106	...	...	...
Percentage of net revenue on Capital outlay	2·94	12·40	3·76	...	...	...

* Exclusive of Rs. 22,591, the outlay incurred on widening the main canal, a work started for famine relief purpose and written back to Capital.

† The expenditure in the Public Works Department includes a large sum spent on Minor works, Revenue Department, under the Tank Restoration scheme.

CHAPTER XI.

FORESTS.

CHAP. XI. FORESTS. Conservation.

Statement showing the extent of Forests in the district of North Arcot on the 30th June 1893.

Taluk.	Reserved forest.		Reserved land.		Total.	
	Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.
Arcot	7	10,077	...	...	7	10,077
Chendragiri	8	53,358	7	55,870	15	109,228
Chittoor	15	62,478	1	360	16	62,838
Chittoor and Chendragiri	1	2,097	...	...	1	2,097
Gudiyáttam	13	41,638	2	16,808	15	58,446
Palmanér	10	61,172	2	2,880	12	64,052
Palmanér and Gudiyáttam	2	30,200	...	...	2	30,200
Pólúr	9	128,563	5	35,160	14	163,723
Vellore	4	15,053	10	85,530	14	100,613
Vellore and Pólúr	1	15,121	...	...	1	15,121
Wálájápet	9	10,112	6	327	15	10,439
Wandiwash	9	10,732	...	...	9	10,732
TOTAL ...	88	440,601	33	196,965	121	637,566

FOR long after the assumption of the district by the British no systematic control of the forests of the district was attempted. Until 1844 the only tax upon timber was that collected as land customs by the Sáyer officials. When land customs were abolished, felling greatly increased, and became so indiscriminate that in 1846 the Collector, Mr. Lovell, directed that all jungles should be taken charge of by Tahsildars and that no tree should be felled without their permission, which should only be given for such trees as the monigar of the village pronounced fit to be felled. A small tax was at the same time levied, but it was too low to keep the jungles from being recklessly thinned. The charge, for instance, for a cart-load of red sanders wood was only Rupee 1, while in Cuddapah it was as high as Rs. 6; the natural result was that red sanders almost disappeared, and that the Tirupati forests, in which alone it grew, were handed over to the Deputy Conservator of the Cuddapah district in 1861. In the following

CHAP. XI. FORESTS. — Conservation.

year Mr. J. D. Robinson, the Collector, brought conservancy rules for the first time into operation, fixing new rates of seigniorage, and adopting what he styled the "Monigar Ranger and Yánádi gilly" system. Village monigars collected the seigniorage, and retained 20 per cent. of the receipts as the remuneration of themselves and their watchers.

In 1863 the Board of Revenue proposed that the Vellore and Pólúr jungles should be placed under a Deputy Conservator, as the Sub-Collector, Mr. Barlow, had no faith in village conservancy, and was convinced that many saplings were destroyed. Mr. Robinson strongly opposed the measure; but in 1865 the Thellay and Arasambatt jungles were transferred to the Forest department, and all the rest of the Vellore and Pólúr forests followed two years later. Previous to this, most of the best trees had been carried away for use upon the railway, while Mr. Sullivan was Sub-Collector and entrusted with the supply of sleepers to the company. The forests have not yet recovered from the terrible drain then imposed upon them.

In 1869 it was proposed that all the Gudiyáttam and Chendragiri jungles should be put under Imperial conservancy, but Mr. Robinson again objected on the plea that village grazing rights would be interfered with.

After the passing of the Madras Forest Act in 1882, matters were put on a more regular footing and systematic reservation has now made great progress. On the 30th June 1893 there were 410,601 acres of reserved forest and 196,965 acres of reserved lands. Most, if not all, of the latter will eventually become reserved forest. Pólúr, in which taluk the Javádi hills are situated, has the largest area of forest land, but in both Chendragiri and Vellore there are over 100,000 acres. Arcot, Wálájápet and Wandiwash, on the other hand, have only about 10,000 acres each. There is 0·47 of an acre of forest land to each inhabitant of the Government villages and there are about one head of cattle and one sheep or goat to each acre.

Taluk.	Extent of forest per inhabitant.	Number of animals per acre of forest.	
		Cattle.	Sheep and goats.
	ACRES.		
Arcot ...	0·06	7	8
Wálájápet ...	0·04	9	12
Wandiwash.	0·06	7	11

In Arcot, Wálájápet and Wandiwash the proportion of forest is very low and firewood and grazing must be difficult to obtain in that part of the district.

Forest revenue and expenditure.

The financial aspect of the State forests of the district is shown in the marginal statement. During the last five years the forests have yielded a net revenue of Rs. 4,50,979, notwithstanding the fact that there has been, during that period, considerable expenditure on works, the cost of which might properly be debited to capital. The chief sources of income are the sale of firewood, minor forest produce, bamboos and timber, and fees for grazing. About one-third of the expenditure is on establishments, and the rest is incurred for the extraction of forest produce, the protection of the forests from fire and the construction of roads, buildings, &c. The permanent establishment consists of one District Forest Officer, four Rangers, nine Foresters and 76 Forest Guards, besides the clerical staff and peons. The temporary establishment varies a good deal from year to year.

Year.	Receipts.	Expenditure.
	RS.	RS.
1888-89	1,22,172	69,280
1889-90	1,77,859	69,446
1890-91	2,01,792	63,754
1891-92	1,63,940	83,633
1892-93	1,88,133	1,16,804
TOTAL ...	8,53,896	4,02,917

Forest offences.

The efficient protection of the forests has, of course, not been effected without some difficulty and obstruction, and the number of offences against the forest laws shows a steady increase during the past five years. This increase however is more apparent than real and the advance in the number of cases may be safely ascribed to the yearly improvement in the protection of the forests. More than half the cases are compounded for a money payment by the offenders.

Offences against forest laws.

Year.	Cases.
1888-89	179
1889-90	255
1890-91	334
1891-92	700
1892-93	884

CHAPTER XII.

ABKÁRI REVENUE.

CHAP. XII. ABKÁRI. History.

ABKÁRI revenue, or the revenue derived from taxing the consumption of liquor and intoxicating drugs, formed an appreciable portion of the receipts of Hindu and Musalman sovereigns, and the systems found in force on the assumption of the Carnatic were continued by the British. At first the right to collect this revenue was left with the zemindars and poligars, but on the permanent settlement being introduced, the tax on intoxicating liquors and drugs, as well as customs, and the duty on salt were resumed and placed under the direct control of the officers of the Government.

The system adopted by the British Government was that of leasing out the toddy farms of portions of the district, and licensing arrack shops and stills in various localities, with unrestricted rights of distillation and sale. The number of stills licensed in 1836 was 701, and of shops 859. The value of arrack sold in that year was estimated at Rs. 1,20,000, while that of toddy was stated to be only Rs. 18,000. The Government tax upon a gallon of arrack sold was Rs. 3–11–0 per gallon, or 150 per cent. upon the cost of its production. No rule as to the strength of the liquor distilled was in force, and the supervision of the Collector over the shopkeepers was nominal. The abuses which resulted led to the renting out of the arrack monopoly in the same way as that of toddy, and the two farms were for some years put up together for competition. Finally, the excise system was applied to the arrack farm for the whole of the district, while toddy farms were let for small portions of it. The arrack contractor paid a fixed rate of duty upon all liquor issued by him, at regulated strengths, and within certain fixed limits of price, and he, moreover, guaranteed that not less than a certain sum would be paid by him to Government.

Present systems—*Arrack.*

The mode of administration now in force is, as regards arrack, the private distillery system. No exclusive privilege of manufacture or supply is assigned, but licenses for distilleries and for private warehouses are granted on payment of an annual fee of Rs. 100 for the former and Rs. 50 for the latter to any respectable

Present systems—Arrack.

person who is prepared to provide suitable buildings and to conform to the conditions prescribed. There are two such distilleries in the district, one at Ranipet and the other at Palmanér, belonging to Messrs. Morison and Sons. The right of retail sale is put up to auction annually. The shops in the Wálájápet and Gudiyáttam taluks, and those in the towns of Chittoor, Vellore, Arcot, Arni, Tirupati, Palmanér, Pólúr, Tiruttani, Puttúr, Ambúr, Kalambúr, Kannamangalam, Chendragiri and Kálahasti are sold separately. The rest of the district is divided into 39 vend areas. The rate of excise duty is Rs. 3–12–0 per gallon of spirit of proof strength, Rs. 3 for 20 degrees under proof, Rs. 2–10–0 for 30 degrees under proof and Rs. 1–8–0 for 60 degrees under proof.

Toddy.

The toddy revenue is also realized under several systems. In some taluks the shops are separately sold under the tree-tax system, in others under the ordinary system, while the rest of the district is divided into farms. The tendency is in both cases towards the adoption of the shop as the unit, and as regards toddy to the extension of the tree-tax system. Changes at present take place annually and a more detailed account of the existing practice would be useless.

Foreign liquor.

The revenue from the sale of foreign liquor is derived from rentals determined by auction in the case of tavern licenses (*i.e.*, licenses for the retail sale of foreign liquor to be consumed on the premises) and from fixed fees in the case of licenses for hotels, refreshment-rooms, wholesale shops and shops where the liquor is not to be drunk on the premises. Country spirits excised at strength other than 20 degrees, 30 degrees or 60 degrees under proof are treated as foreign spirits.

Opium.

The monopoly of the retail sale of opium and of the manufacture and sale of intoxicating drugs prepared from opium is sold by auction on the farming system and the farmers either import the drug themselves or obtain it from licensed importers. A license to import is granted by the Board of Revenue on the recommendation of the Collector, and the consignment on arrival in the district is checked by some responsible revenue officer before being passed for sale to farmers and licensed vendors.

Hemp drugs.

There is no restriction on the possession and transport of intoxicating drugs made from the hemp plant, but only persons licensed by the Collector are permitted to sell them. The number of licenses to be issued in each district is fixed annually by the Board of Revenue on the recommendation of the Collector, and the licenses as thus determined are then sold by public auction.

CHAP. XII. ABKÁRI.

Shops.

The number of arrack shops has fallen from 778 in 1888–89 to 698 in 1891–92. Each shop has now to supply an area of 10·9 square miles containing a population of 3,121 persons, the average for the presidency being an area of 9·9 square miles and a population of 2,842. The number of toddy shops was 1,492 in 1887–88, but it had fallen to 1,328 in 1891–92. The area to each shop is 5·7 square miles, the presidency average being 6·1, and the mean population is 1,640, which is 121 less than the provincial average. The number of shops for the sale of opium and intoxicating drugs has remained pretty stationary, and is now 41.

Consumption.

The statistics of consumption are imperfect, as no record is kept of the amount of toddy drunk, and in North Arcot toddy is the favourite beverage. Of arrack the annual consumption during the last five years is shown in the appended statistics. In 1891–92 there was a great falling off owing to the very unfavourable nature of the season. The average consumption per head is in ordinary years about one-twentieth of a gallon of spirit of proof strength. Small as this quantity is it is yet higher than the rate found in most Madras districts. The consumption is very much greater in towns than in rural tracts, and in Tiruttani and Arni the quantity drunk comes to rather over half a gallon per head. The quantity of opium and its preparations sold in five years ending with 1891–92 comes to rather more than 1,000 pounds per annum or about one-fiftieth of a tola per head of the population. There are no statistics of the consumption of intoxicating drugs, but the amount is known to be very small.

Revenue.

The total abkári revenue of the district, including opium revenue, is about 9½ lakhs per annum, of which 5½ lakhs are derived from arrack, 3½ lakhs from toddy, Rs. 14,000 from foreign spirits, Rs. 20,000 from opium and the rest from various miscellaneous sources. In 1887–88 the total revenue was Rs. 7,22,000, and four years later it had risen to Rs. 9,61,000. In the case of arrack revenue the increase during this period was 27·68 per cent., while the increase in consumption was only 10·50 per cent., and there can be very little doubt that in the case of toddy also the revenue increased at a considerably greater rate than the consumption. The incidence of arrack revenue is about 4 annas per head, while that of toddy is 2 annas and 7 pies, or a total of 6 annas 7 pies against an average for the presidency of 5 annas and 1 pie. The retail price of liquor varies a good deal, but it is probably not more on an average than 25 per cent. of the tax, so that the 'drink bill' of the district comes to 8¼ annas per head per annum. In the United Kingdom the expenditure on intoxicating liquors in 1893 was estimated to be £3–12–3 per head of the population.

CHAP XII.
ABKÁRI.

Statistics.

Statement showing the Abkári Revenue of the North Arcot district for the five years 1887–88 *to* 1891–92.

Year.	Revenue derived from					
	Arrack.	Toddy.	Foreign spirits.	Miscel-laneous.	Opium.	Total.
	RS.	RS.	RS.	RS.	RS.	RS.
1887–88 ...	4,44,348	2,32,847	31,242	2,659	11,202	**7,22,298**
1888–89 ...	4,49,937	2,79,731	14,289	1,330	10,121	**7,55,408**
1889–90 ...	5,39,458	3,00,167	13,149	1,548	7,772	**8,62,094**
1890–91 ...	5,67,294	3,58,711	17,350	2,519	15,349	**9,61,223**
1891–92 ...	5,44,038	3,55,538	13,994	13,579	17,452	**9,44,601**
TOTAL ...	**25,45,075**	**15,26,994**	**90,024**	**21,635**	**61,896**	**42,45,624**
AVERAGE ...	**5,09,015**	**3,05,399**	**18,005**	**4,327**	**12,379**	**8,49,125**

Statement showing the number of Abkári offences and the results of their trial.

Year.	Number reported.		Number tried.			
			Convicted.		Acquitted.	
	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.
1887–88 ...	321	333	299	309	19	21
1888–89 ...	279	307	237	246	28	44
1889–90 ...	543	547	230	241	15	16
1890–91 ...	303	327	280	298	11	15
1891–92 ...	612	663	524	560	18	22
TOTAL ...	**2,058**	**2,177**	**1,570**	**1,654**	**91**	**118**
AVERAGE ...	**412**	**435**	**314**	**331**	**18**	**23**

Statement showing the sales of Arrack, &c., in Shops.

Year.	Number of shops.			Quantity of arrack sold.				Quantity of opium and its preparations sold.
	Arrack.	Toddy.	Opium, intoxicating drugs, &c.	20 degrees under proof.	30 degrees under proof.	60 degrees under proof.	Total reduced to proof strength.	
	NO.	NO.	NO.	GALS.	GALS.	GALS.	GALS.	LBS.
1887–88 ...	759	1,492	42	6,276	123,052	...	91,157	902
1888–89 ...	778	1,369	42	5,927	123,688	...	91,323	956
1889–90 ...	774	1,384	44	6,310	136,182	...	100,375	1,057
1890–91 ...	724	1,347	41	6,728	136,084	...	100,641	1,350
1891–92 ...	698	1,328	41	4,097	120,351	50	87,543	1,081
TOTAL ...	**3,733**	**6,920**	**210**	**29,338**	**639,357**	**50**	**471,039**	**5,346**
AVERAGE ...	**747**	**1,384**	**42**	**5,868**	**127,871**	**10**	**94,208**	**1,069**

CHAPTER XIII.

INCOME-TAX AND STAMP REVENUE.

CHAP. XIII. INCOME-TAX.

Revenue.

THE revenue from the tax on incomes shows a considerable increase during the last five years. In 1888–89 there were 3,326 persons assessed to the tax and the amount realized from it was Rs. 68,607. In the following year the number of assessees was 3,812 and the amount of the tax advanced to no less than Rs. 82,473. Since then there has been a steady increase and in 1892–93 the final demand was Rs. 93,515, and the number of persons assessed 4,633. A large proportion of this advance must be ascribed to greater care in assessments and not to increased prosperity.

Year.	Amount of tax.	
	Number assessed.	Total assessments.
	RS.	RS.
1888–89	3,326	68,607
1889–90	3,812	82,473
1890–91	4,056	82,705
1891–92	4,323	89,964
1892–93	4,633	93,515

Classes assessed.

Of the classes assessed the most important are the money-lenders and changers, of whom 1,792 paid the tax in 1892–93, the amount collected being no less than Rs. 35,663. It may be noticed that the number of money-lenders shown in the census tables is only 1,909, and this number includes all those dependent on the occupation for their means of livelihood as well as those actually exercising the calling. It is clear that the census returns were defective as regards this occupation, and the error is, no doubt, largely due to the fact that money-lending is frequently combined with some other occupation. Of the remaining classes assessed to income-tax the most numerous are grain merchants (400), servants of local bodies and companies (386), general merchants (365), Government employés (325) and piece-goods merchants (314). There were 17 companies assessed in 1892–93; most of these are small benefit societies.

Incidence of the tax.

In 1892–93 one person in every 471 of the district population was assessed against one in 577 for the presidency as a whole exclusive of the capital town. It should be remembered in considering these figures that incomes derived from agriculture are not taxable and that agriculturists form 70 per cent. of the total population.

Incidence of the tax.

The incidence of the tax was 8·2 pies per head, which is also the figure for the presidency outside Madras. If the incidence of income-tax can be taken as a measure of the wealth of a district, then 11 out of the 21 districts are poorer than North Arcot. In South Arcot the incidence is only 4·5 pies per head.

If we take only the persons who are actually assessed the amount per head is Rs. 20–2–11, the average for all districts being Rs. 24–14–7.

Taking only the tax on the general population, *i.e.*, excluding incomes of companies, servants of Government, local bodies and companies, and incomes derived from public securities, the incidence of the tax is 6·9 pies per head. This incidence varies a good deal in different taluks as shown below :—

Taluk.	Incidence per head of population.			Incidence of tax per head of assessee.		
	RS.	A.	P.	RS.	A.	P.
Arcot	0	0	5·3	16	2	8·4
Arni	0	1	0·1	27	13	7·4
Chendragiri	0	1	1·5	21	14	8·3
Chittoor	0	0	5·8	22	3	0·6
Gudiyáttam	0	0	4·8	16	2	2·4
Kálahasti	0	0	5·8	19	4	2·6
Kangundi	0	1	0·5	26	5	9·3
Mádarpák	0	0	5·0	15	9	10·5
Palmanér	0	0	6·5	15	13	11·5
Pólúr	0	0	3·8	14	10	2·3
Punganúr	0	0	5·4	15	3	5·8
Puttúr	0	0	5·2	17	12	9·8
Tiruttani	0	0	7·0	18	5	6·8
Vellore	0	1	4·2	29	13	5·4
Wáläjá	0	0	4 6	15	8	4·4
Wandiwash	0	0	2·3	13	14	8·8
TOTAL ...	0	0	6·9	20	1	6·7

The incidence is very low in Wandiwash and Pólúr, and probably lower than it ought to be both in those taluks and in Arcot, Gudiyáttam and Wálájá.

There are altogether 3,905 assessees of this class (*i.e.*, assessed under part IV of the schedule), and of these 2,070, or 53 per cent., have incomes under Rs. 750, while 713 more have a yearly revenue of less than Rs. 1,000. This leaves 1,122 persons, or 18 per cent., with assessable incomes over Rs. 1,000, and of these again all but 204 have less than Rs. 2,000 a year. There are 166 persons with incomes between Rs. 2,000 and Rs. 5,000, thirty with incomes between Rs. 5,000 and Rs. 10,000, six with incomes ranging from Rs. 10,000 to Rs. 20,000, and two with between Rs. 30,000 and

CHAP. XIII. INCOME-TAX. Incidence of the tax.

Rs. 40,000 a year. Put in a proportional form, 71 per cent. have taxable incomes under a thousand rupees, 23·5 per cent. between one and two thousand rupees a year, 4·5 per cent. between two thousand and five thousand, 0·8 per cent. between five thousand and ten thousand and 0·2 per cent. ten thousand rupees and over. The absence of great individual wealth which these figures disclose is common throughout the presidency, for except the zemindars, the bulk of whose incomes are not taxable, and a few merchants in the larger cities, there are very few men of princely fortunes in Southern India.

Collection of the tax.

The tax is collected with a fair amount of ease. In 1888–89 as many as 1,334 persons failed to pay the tax within the time allowed, but only nine defaulters neglected to pay after a receipt of a formal notice of demand, and in no year of the last quinquennium did the number of defaulters at this stage exceed 16, while the amount of the arrears was only a little over Rs. 100. The number of initial defaulters has greatly decreased, notwithstanding the increase in the number of assessees, and in 1892–93 only 386 demand notices were required. The number of cases in which property was sold in order to recover the tax was four, eleven, three, eight and twelve, respectively, in each of the years of the last quinquennium. The cost of the special establishment required for the assessment and collection of the tax was Rs. 352 in 1892–93, and a sum of Rs. 84 was paid as commission to companies for collecting the tax payable by their servants. The total amount (Rs. 436) is only 0·47 per cent. of the assessment.

STAMP REVENUE.

The statistics of stamp revenue are compiled for periods of three years and the revenue for the three most recent periods is given on the margin. The receipts from this source show a steady increase and the figure for the last triennial period gives an average annual revenue of Rs. 2,75,727. Of this sum Rs. 1,62,353 is derived from the sale of judicial and Rs. 1,11,664 from non-judicial stamps; the small balance consists of miscellaneous items.

Period.	Revenue.
	RS.
1884–87	6,48,261
1887–90	7,34,952
1890–93	8,27,181

The incidence per head is 2 annas a year, and only in Ganjám, Vizagapatam, Anantapur, Salem and South Arcot is the incidence lower than this. The ratios to the population of income-tax and stamp revenue do not agree so closely as would be expected.

The number of licensed stamp vendors in the district in 1892–93 was 106, or one to every 20,500 of the population and to every 72 square miles of area.

CHAPTER XIV.

SPECIAL FUNDS AND ENDOWMENTS.

CHAP. XIV.

VILLAGE SERVICE FUND.

Its origin.

THE Village Service Fund was established for the purpose of substituting money wages for the former modes of remuneration of the revenue and police servants of Government villages. These servants were formerly remunerated either by grants of land (*ináms* or *mániams*) free of assessment or subject only to the payment of a small quit-rent, or by fees (*méras*) in money or kind payable by the ryots of the village, or by a combination of the two methods. An account of the village servants and of the various details of their remuneration will be found in the chapter on the Revenue History of the district, and it will be sufficient to state here that, the system having been found open to numerous objections, it was determined to enfranchise the *ináms* and to substitute a regular money-cess for the various *méras*. The *inám* lands were accordingly assigned to the office-holder for the time being, but in consideration of the fact that these lands had long been regarded as practically the private property of the family who held the hereditary right to the village office, only five-eighths of the full assessment was imposed as a quit-rent. This quit-rent is credited to the Village Service Fund.

The village-cess was originally imposed under Act IV of 1864, but this Act has now been replaced by Act IV of 1893. Under the latter a cess based on the land assessment and water-tax payable to Government is substituted for the fees in money or kind which were formerly paid. The rate of cess is to be such as will yield a sum as nearly as possible equivalent to one-half of the cost of the village service within the area to which the Act is applied, but it shall not in any case exceed one anna in every rupee of land assessment and water-tax. The other half of the cost of the village establishments is defrayed by contributions from general revenues. These contributions consist principally of the quit-rents of the enfranchised ináms and of the proceeds of lands formerly appropriated to the remuneration of village servants but since resumed by the Government.

CHAP. XIV.
VILLAGE SERVICE FUND.

Revision of village establishments.

As a preliminary to the introduction of these arrangements the village establishments were revised chiefly in the direction of equalising the charges of the different classes of officers. The entire scheme of revision is hardly yet complete, but its main features are briefly as follow. The first step was to reduce the existing villages into a number of larger groups, each to form the charge of a karnam or a monigar-munsif. The ranges of the two officers were generally co-terminous, but this is not always so and the number of karnam's villages is somewhat smaller than the number of monigar's charges. The pay of these officers is determined by the total land assessment of the village, or rather group of villages, according to the following scale:—

Land assessment (béríz).	Monthly salary of Karnam.	Monthly salary of Monigar-munsif.
	RS.	RS.
Above Rs. 12,000	12	10
Between Rs. 8,000 and 12,000	10	8
,, ,, 4,000 and 8,000	8	7
,, ,, 2,000 and 4,000	7	6
Below Rs. 2,000	6	5

In the case of about a dozen groups an assistant karnam is allowed, his salary being Rs. 7 or Rs. 6 according to the assessment. Similarly for groups with a land revenue of Rs. 4,000 and upwards a joint monigar is appointed to assist in the collection of the revenue, but not in the magisterial and police duties, which can be performed only by the munsif. For a few large towns or places of pilgrimage, such as Vellore, Tirumalai and Tiruc'chánúr, special additional munsifs are allotted.

Turning now to the menial servants, the Vettis or Tótis (the village messengers) are appointed and remunerated according to the following scale:—

Land assessment of village.	Vettis. Number.	Vettis. Pay.
Above Rs. 12,000	4	Rs. 4 per mensem in all cases.
Between Rs. 8,000 and 12,000.. ..	3	
,, ,, 4,000 and 8,000	2	
,, ,, 3,000 and 4,000	2	
Below Rs 3,000	1	

The number of taliáris is regulated by the population of the villages or hamlets forming the group. The scale adopted generally is as follows:—

For each village or separate hamlet with a population between 200 and 1,000	One taliári.
For each village or separate hamlet with a population between 1,000 and 2,000.. ..	Two taliáris.

CHAP. XIV.

VILLAGE SERVICE FUND.

For each village or separate hamlet with a population between 2,000 and 4,000 .. Three taliáris.
For each village or separate hamlet with a population over 4,000 .. .. .. Four ,,

Revision of village establishments.

In addition to these village policemen there are a number of special taliáris appointed to keep watch at night on the mountain passes. The pay of a taliári is Rs. 4 per mensem.

Nírgantis or nírkattis are only allowed for villages in which there are large irrigation works. As a rule one is sanctioned for each work irrigating between 200 and 1,000 acres and two for each work irrigating over 1,000 acres. In certain cases, however, a nírganti has been sanctioned for works irrigating between 100 and 200 acres, and the total number is 102.

The office of village shroff is not now treated as a public one and the inám lands formerly assigned to it have been enfranchised.

Receipts and charges of the Fund.

The receipts and charges of the fund during the last five years are shown in the following statement :—

—	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.
	RS.	RS.	RS.	RS.	RS.
Cess under Act IV of 1864.	31,914	1,03,392	1,62,853	1,00,300	2,16,256
Méras collected in addition to land assessment.	1,04,638	50,201	...	...	1
Deductions from bériz ...	31,945	9,090	1,04,082	65,178	91,493
Quit-rent on enfranchised ináms.	22,405	26,519	1,59,898	61,020	1,50,880
Interest	29	2	...	...	233
Miscellaneous	1,752	3,687	6,622	654	346
TOTAL RECEIPTS ...	1,92,683	1,92,891	4,33,455	2,27,152	4,59,209
Expenditure	1,54,552	1,58,532	2,65,208	3,08,706	3,11,243

The Village Cess Act was extended to the whole of the district only on the 1st July 1889, and this accounts for the advance in the receipts from this source up to 1891–92. The falling off in the latter year was due to the unfavourable character of the season, on which account the collection of the cess was postponed in many villages. The decrease under other heads in that year is ascribed to the same cause. The advantages to the village officers of regularly paid money salaries over the old remuneration by *ináms* and *méras* is clearly shown by the statistics for 1891–92. If the old system had been in force these officials would have suffered heavily from the failure of the season.

The expenditure consists almost entirely of salaries, but a small amount is now expended annually on the provision of village

CHAP. XIV. POUND FUND.

'chávadis' or court-houses. The balance to the credit of the fund at the end of the year 1892–93 was Rs. 3,75,919.

The only other special fund in the district is the Pound Fund. In 1888 there were only 352 cattle pounds in North Arcot, or one to every 21·64 square miles, but by 1892–93 their number had risen to 532, or one to every 14·32 square miles, the average ratio for the presidency being one to 14·14 square miles. Of these 532 pounds, 484 were reported to be in good repair, 485 were provided with both water-troughs and feeding-racks, 5 with feeding-racks only and 33 with water-troughs only; 385 were roofed structures and 147 were mere enclosures, but of the latter 45 were shaded by trees. In all these respects North Arcot is in a better position than most districts. Thus in North Arcot 90·98 per cent. of the pounds are in good repair, while the proportion for the whole presidency is only 78·57 per cent. In North Arcot again 91·17 per cent. of the pounds are provided with both drinking-troughs and feeding-racks, while for all districts together the figure is 78·77 per cent.; and, lastly, while 72·37 per cent. of the pounds of North Arcot are roofed structures, the proportion for the presidency as a whole is only 50·98 per cent. In 1888–89 the receipts from fees, sale of unclaimed animals, &c., were Rs. 13,474 and the charges Rs. 13,340; in 1892–93 they were respectively Rs. 22,009 and Rs. 18,967.. The balance at credit on the 31st March 1893 was Rs. 7,695. A larger balance is found only in three districts. The balance on the 1st April 1888 was only Rs. 126.

ENDOWMENTS.

The public endowments of the district are considerable, the annual value of those in the Government taluks alone being nominally over a lakh of rupees, and in reality considerably more.

Religious endowments.

The endowments of religious institutions consist of lands and money grants. The lands aggregate 13,051 acres and these pay a quit-rent which is less than the full assessment by Rs. 24,000. The annual value of the lands to the beneficiaries of the endowments is, however, more than this, for they let for a sum greater, and in many cases very considerably greater, than the full assessment. The money grants are tasdik and yeomiah allowances, which for the most part represent the assessment on land grants that have been resumed. The annual value of these allowances is Rs. 38,000. The total nominal value of public endowments of temples and mosques is thus Rs. 62,000 per annum and the actual income cannot be much less than Rs. 75,000.

Other endowments.

The remaining endowments are (1) those granted for the maintenance of buildings and works of charity, such as chatrams, topes with wells and the like; (2) lands granted for the support of

Other endowments.

Bráhmans; (3) *khayrát ináms* or grants for the support of the halt, the dumb and others unable to maintain themselves; and (4) *dasabandam ináms*, or lands granted at a favourable rate of assessment on condition that the grantee maintains a certain tank or other irrigation work. These, however, can hardly be called charitable endowments. Particulars of these and of the religious endowments are given in the appended statement. In addition to these endowments in the Government villages there are many charitable endowments in the zemindáris, made practically not by the zemindar but by the State, for the sacrifice of land assessment which their grant involves was taken into account at the settlement of the zemindar's peshkash.

Statement showing the nature and extent of Public Endowments in the District of North Arcot.

Class of endowments.	Nature of endowments.	Land.			Money.
		Extent of the land.	Full assessment of the land.	Quit-rent.	Amount of the grant.
		ACRES.	RS. A. P.	RS. A. P.	RS. A. P.
Religious institutions	Granted for services rendered in Hindu temples and Muhammadan mosques.	13,051	27,445 12 4	3,373 11 0	* 38,284 11 11
Charitable endowments ...	Granted for public charitable purposes such as upkeep of charitable topes and chatrams.	3,575	10,156 1 1	598 0 1	......
Grants to Bráhmans	Ináms given to Bráhmans as charity ...	8,007	23,192 0 5	7,384 15 0	......
Grants to other Hindus and Musalmans.	Khayrát ináms granted to Hindus and Musalmans as charity.	2,834	6,329 3 4	976 5 11	......
Dasabandam ináms	Endowments granted for the maintenance of irrigation works.	5,121	23,306 5 0	2,424 14 4	......
	TOTAL ...	**32,588**	**90,429 6 2**	**14,757 14 4**	**38,284 11 11**

* Tasdik and yeomiah allowances.

CHAPTER XV.

THE ADMINISTRATION OF JUSTICE.

CHAP. XV.
CIVIL JUSTICE.
Civil Courts.

UNTIL 1805 the Collector of the district alone exercised civil jurisdiction, an appeal lying from his decisions to the Board of Revenue. In 1805 the judicial system of Lord Cornwallis was introduced, and a Provincial Court, a Zilla Court and a Native Commissioner's Court were established. The jurisdiction of the last extended to suits regarding money, or real property, of value not exceeding Rs. 80. An appeal lay from the Commissioner to the Zilla Court presided over by the Adaulut Judge, who was assisted by a Registrar, a Pandit, a Mufthi and a Native Registrar. The first three were empowered to try cases referred to them by the Judge, but the last was merely his assistant employed in reading and explaining vernacular records. The Court was held in the present Police office at Chittoor. Appeals from the Zilla Court went to the three Judges of the Provincial Court. This had jurisdiction over the districts of Chingleput, Cuddapah and North Arcot, but was held at Chittoor in the present District Court house. The Judges were assisted by a Registrar, who was a Covenanted Civil Servant, a Pandit, Mufthi and Kházi. The last three merely expressed their opinions upon questions of Hindu or Muhammadan law submitted to them by the Judges.

Regulation VI of 1816 abolished the Commissioner's Court and brought into existence those of District Munsifs established at Chittoor, Venkatagiri, Vellore, Tiruvattúr, Tirupati and Sholinghur. The Tiruvattúr Court was subsequently moved to Arni, and that of Venkatagiri to Gudiyáttam and thence to Palmanér.

In 1843 the Provincial and Zilla Courts were abolished, and in their stead the Civil Court and Subordinate Judge's Court were established. The latter continued until 1860, when it gave way to the Court of a Principal Sudder Amin. Two years later this was displaced by a Small Cause Court, which was held at Vellore until April 1877, in which year it was abolished.

The District Munsif's Court had meanwhile been reduced in number, that of Vellore being closed in 1868, but restored in 1877 upon the abolition of the Chittoor District Munsif's Court.

CHAP. XV. CIVIL JUSTICE.

Civil Courts.

At present the regular Civil Courts of the district are the District Court and five District Munsifs' Courts. The jurisdictions of the District Munsifs are as follows :—

Names of District Munsif's Courts.	Names of revenue taluks comprised within the jurisdiction of each Court.
Vellore Munsif ...	Revenue taluks of Vellore and Gudiyáttam and the Zemindári of Kangundi.
Arni Munsif ...	Revenue taluks of Arcot, Pólúr and Wandiwash and the Jágir of Arni.
Sholinghur Munsif ...	Revenue taluk of Wálájápet and Pallipatt and Tiruttani taluks of the Zemindári of Kárvetnagar.
Chittoor Munsif ...	Revenue taluks of Chittoor and Palmanér, the Mogarálapálaiyam in Chendragiri taluk, and the Punganúr zemindári.
Tirupati Munsif ...	Revenue taluk of Chendragiri (except Mogarálapálaiyam), the Kálahasti zemindári, and Náráyanavanam taluk of the Kárvetnagar zemindári.

Village Munsifs are empowered under the Madras Village Courts Act, 1888, to try petty suits in which the value of the subject-matter does not exceed Rs. 20; formerly the pecuniary limit was Rs. 10.

Civil powers are also exercised by the Collector and his Divisional officers under Regulation VI of 1831 and the Rent Recovery Act of 1865.

Suits.

The following table shows the number of suits instituted in each of the last five years :—

Year.	Ordinary and Summary Suits.		Small Causes.		Village Courts.	
	Number.	Value.	Number.	Value.	Number.	Value.
		RS.		RS.		RS.
1888 ...	3,891	8,33,516	3,355	1,15,463	2,481	Not known.
1889 ...	4,326	9,34,834	3,535	1,11,095	1,768	Not known.
1890 ...	4,119	13,57,736	3,833	1,18,784	1,454	Not known.
1891 ...	3,705	10,62,485	3,782	1,31,378	1,641	Not known.
1892 ...	4,575	8,96,313	4,542	1,54,261	2,232	Not known.
AVERAGE.	**4,123**	**10,16,977**	**3,809**	**1,26,196**	**1,915**	

The following statement gives details of the value of these suits :—

Statement showing the Value of Suits instituted in the several Courts of North Arcot during the years 1888–1892.

Class of Court.	Year.	Ordinary and Summary Suits.												Small Causes.				
		Not exceeding Rupees								Exceeding Rs. 1,00,000.	Not estimable in money.	Total.		Not exceeding Rupees			Total.	
		50	100	500	1,000	2,500	5,000	10,000	1,00,000			No.	Value.	50	100	500	No.	Value.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.		RS.	NO.	NO.	NO.		RS.
Revenue Courts.	1888 ...	270	31	8	...	1	...	...	...	...	65	375	9,151	...	...	...	...	...
	1889 ...	305	26	14	...	...	...	...	...	...	...	345	7,881	...	...	...	...	...
	1890 ...	345	8	7	...	...	...	...	...	...	...	360	7,932	...	...	...	...	...
	1891 ...	416	22	10	2	...	...	...	...	...	...	450	11,126	...	...	...	...	...
	1892 ...	524	53	32	...	...	...	...	...	...	1	610	17,016	...	...	...	...	...
	AVERAGE.	**372**	**28**	**14**	**1**	...	...	...	...	...	**13**	**428**	**10,621**	...	...	...	...	...
District Munsifs' Courts.	1888 ...	932	1,088	1,250	131	52	...	...	...	...	35	3,488	5,34,209	2,774	422	159	3,355	1,15,463
	1889 ...	1,041	1,336	1,346	125	68	...	...	...	...	32	3,948	5,91,496	3,080	305	150	3,535	1,11,095
	1890 ...	1,014	1,188	1,258	132	83	...	...	...	...	41	3,716	5,94,235	3,153	446	234	3,833	1,18,784
	1891 ...	751	1,019	1,180	129	49	...	...	...	...	74	3,202	5,13,794	3,166	428	188	3,782	1,31,378
	1892 ...	856	1,327	1,447	167	59	...	...	...	...	60	3,916	6,24,549	3,781	511	250	4,542	1,54,261
	AVERAGE.	**919**	**1,192**	**1,296**	**137**	**62**	...	...	...	...	**48**	**3,654**	**5,71,657**	**3,191**	**422**	**196**	**3,809**	**1,26,196**

Statement showing the Value of Suits instituted in the several Courts of North Arcot in the years 1888–1892—cont.

Class of Court.	Year.	Ordinary and Summary Suits. Not exceeding Rupees 50	100	500	1,000	2,500	5,000	10,000	1,00,000	Exceeding Rs. 1,00,000.	Not estimable in money.	Total. No.	Total. Value.	Small Causes. Not exceeding Rupees 50	100	500	Total. No.	Total. Value.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.		RS.	NO.	NO	NO.		RS.
District Judges' Courts.	1888 ...	...	...	...	...	2	14	3	4	1	4	28	2,90,156	...	...	...	...	...
	1889 ...	...	...	...	...	2	11	5	12	...	3	33	3,35,457	...	...	...	...	...
	1890 ...	...	...	...	2	2	13	14	4	1	7	43	7,55,569	...	...	...	.	...
	1891 ...	...	...	...	1	5	21	7	12	1	6	53	5,37,565	...	...	...	...	...
	1892 ...	...	...	1	...	1	24	8	6	...	9	49	2,54,748	...	...	...	...	...
	AVERAGE.	...	...	...	...	**2**	**17**	**7**	**8**	**1**	**6**	**41**	**4,34,699**	...	...	...	...	...
TOTAL ...	1888 ...	1,202	1,119	1,258	131	55	14	3	4	1	104	3,891	8,33,516	2,774	422	159	3,355	1,15,463
	1889 ...	1,346	1,362	1,360	125	70	11	5	12	...	35	4,326	9,34,834	3,080	305	150	3,535	1,11,095
	1890 ...	1,359	1,196	1,265	134	85	13	14	4	1	48	4,119	13,57,730	3,153	446	234	3,833	1,18,784
	1891 ...	1,167	1,041	1,190	132	54	21	7	12	1	80	3,705	10,62,485	3,166	428	188	3,782	1,31,378
	1892 ...	1,380	1,380	1,480	167	60	24	8	6	...	70	4,575	8,96,313	3,781	511	250	4,542	1,54,261
	AVERAGE.	**1,291**	**1,220**	**1,311**	**138**	**65**	**16**	**7**	**8**	...	**67**	**4,123**	**10,16,977**	**3,191**	**422**	**196**	**3,809**	**1,26,196**

CHAP. XV. CIVIL JUSTICE.

Suits.

The bulk of the suits are for money or movables, and nearly all the original work is done in the courts of the District and Village Munsifs. The subject-matter in the great majority of the suits is less than Rs. 100, and there are on an average only about 200 a year in which it exceeds Rs. 500.

Appeals.

There is no Subordinate Judge in the district and the District Court alone exercises appellate authority. During the last five years there were on an average 258 regular appeals and 24 miscellaneous appeals. The average annual disposals were 179 regular appeals and 23 of the others. At the end of 1887 there were only 11 appeals pending, and this was the number also at the end of the following year; but at the close of 1892 the number was no less than 458. In 1892, the average duration of an uncontested appeal was 615 days and of a contested appeal 529 days; in 1888 the figures were 42 and 44 days, respectively. The average annual number of appeals to the High Court is 6 for first and 42 for second appeals.

Receipts and Charges.

The marginal statement shows that the civil courts more than pay their way, the average annual surplus being over half a lakh of rupees. There are, however, certain items on the expenditure side, such as pensions, which are not included in the charges. Rather more than half the annual income is derived from institution fees. The charges are practically all for salaries.

Year.	Receipts.	Charges.	Surplus.
	RS.	RS.	RS.
1888 ...	1,23,176	90,787	32,389
1889 ...	1,41,199	84,926	56,273
1890 ...	1,49,233	87,018	62,215
1891 ...	1,28,915	85,707	43,208
1892 ...	1,45,022	80,417	64,605
AVERAGE.	**1,37,509**	**85,771**	**51,738**

CRIMINAL JUSTICE.

Courts.

The Zilla Judge, appointed in 1805, was also District Magistrate, who tried simple cases and committed the more serious ones for trial by the Provincial Court. One of the three judges of this court itinerated and held a jail delivery once every month in the three districts subordinate to the court. Dárógas and Tánádárs were also empowered to commit cases for trial.

In 1816 the Zilla Judge was relieved of magisterial powers and the Collector was made District Magistrate. In the same year the offices of Tánádár and Dáróga were abolished and their powers transferred to tahsildars and police amins.

The highest criminal court in the district now is that of the Sessions Judge, who holds a sessions once a month for the trial of grave charges, hears appeals from the decisions of the magistrates of the first class, and has certain powers of supervision in respect of all the subordinate criminal courts. The real work of supervision, however, vests in the District Magistrate, an office always held by

CHAP. XV. CRIMINAL JUSTICE.

Criminal Courts.

the Collector. The Revenue Divisional officers are always magistrates of the first class, and their criminal jurisdiction is co-extensive with their revenue sub-divisions. These are the sub-divisional magistrates of the Criminal Procedure Code; the Sub-Collector is generally called the Joint Magistrate, but his powers are exactly the same as those of the other sub-divisional magistrates. The bulk of the original criminal work is done by magistrates of the second or third class. The tahsildar of every taluk has second-class powers, but, except in Palmanér, he exercises them only occasionally, the work formerly done by taluk magistrates having in all other cases been transferred to stationary sub-magistrates as they are called. There is also in each zemindári division and at Vellore, Arkonam, Tirupati and Venkatagirikóta a deputy tahsildar, who exercises magisterial powers. There is thus a sub-magistrate at each of the following stations:—Ambúr, Arcot, Arkonam, Arni, Chendragiri, Chittoor, Gudiyáttam, Kálahasti, Kangundi, Mádarpák, Palmanér, Pólúr, Punganúr, Puttúr, Tiruttani, Vellore, Venkatagirikóta, Wálájápet and Wandiwash. The officers mentioned above form the regular magistracy, but the heads of villages have also power to punish assaults and petty thefts with imprisonment for not more than twelve hours or confinement in the stocks for not more than six hours.

Criminal cases.

The average number of cases instituted in criminal courts of all classes during each of the past five years is 8,209, and of this number 6,545 were instituted in the courts of the subordinate stipendiary magistrates, 1,318 before benches of special magistrates, 297 before magistrates of the first class and 49 were trials at the sessions. The District Magistrate has practically no original work.

The percentage of persons convicted among persons brought to trial in each kind of court during the five years ending 1892 is shown in the marginal table. The cases that come before the benches and special magistrates are for the most part petty nuisance cases, and the percentage of conviction is naturally high. Of the regular courts the subordinate magistrates, who try the bulk of the cases, show a very low percentage of convictions. Taking all courts together 32·63 per cent. or one in three of the persons charged were convicted. For all the courts of the presidency outside Madras the percentage for the same period was 39·72.

Court.	Percentage of conviction.
Court of Session ...	48·24
Joint Magistrate ...	52·03
Assistant Magistrates...	36·63
Deputy Magistrates ...	33·71
Sub-Magistrates ...	27·68
Benches ...	66·06
Special Magistrates ...	92·06

Appeals.

The average annual number of appeals to first-class magistrates and to the Court of Session is 244 and 26 respectively. The

Appeals.

percentage of persons who appeal to those on whom appealable sentences were passed by the subordinate magistracy is 9·87 and the corresponding ratio in the case of first-class magistrates is 17·84 per cent. It is only natural that the latter ratio should be the higher, for the offences tried by such magistrates are more serious and the sentences of course more severe. For the presidency, as a whole, the ratio of actual to possible appellants was no less than 46·98 per cent. in the case of persons convicted by first-class magistrates and 10·10 per cent. in the case of those dealt with by sub-magistrates. Of appellants from decisions of first-class magistrates, 33·33 per cent. were wholly and 11·54 per cent. were partially successful; the corresponding figures for the whole presidency are 19·91 and 12·70 per cent. Putting it in another way, of persons on whom appealable sentences were passed by first-class magistrates 5·80 per cent. succeeded in getting their convictions reversed and 2·00 per cent. got the sentence or order modified in some way; in the case of the remaining 92·20 per cent., the magistrate's decision and sentence were not interfered with. For the presidency, as a whole, on the other hand, 9·14 per cent. of the persons convicted were wholly and 5·83 per cent. partially successful. Turning next to the appellants from the decisions of sub-magistrates, 31·73 per cent. of those who actually appealed were wholly and 9·58 per cent. partially successful. Of those on whom appealable sentences were passed, 3·20 per cent. got the decision reversed and 0·97 per cent. obtained some modification of the sentence or order; the corresponding figures for the presidency are 3·33 and 0·88 per cent.

Receipts and Charges.

The average annual receipts of the criminal courts of North Arcot during the five years 1888-92 amounted to Rs. 27,445. Fines yielded Rs. 16,934 and court-fees Rs. 9,668. The average annual charges during the same period were Rs. 60,653, so that the net cost of the courts is Rs. 33,000 a year.

Village Magistrates' Courts.

The judicial work done by Village Magistrates is trifling. The average number of cases filed before them in each of the last five years is only 1,319, although the number of petty cases must be far larger than this. The number of Village Magistrates who actually try cases is only about 600 in any one year, so that each man disposes on an average of about two cases.

POLICE.

Previous systems.

Under native rule in North Arcot the mén-kávali system of police was in force. By this an officer styled mén-kávalgár was appointed to a certain tract of country, with village watchers called kávalgárs, taliáris, or vettis, who, under his supervision, discharged police duties. In the zemindáris and pálaiyams the owners of the states were themselves the mén-kávalgárs. The fundamental principle of the system was the responsibility of the

CHAP. XV. POLICE. Previous systems.

watchers for all losses by theft or robbery, a responsibility enforced, upon complaint, by the mén-kávalgár, who, upon the other hand, used his influence in enforcing the payment of fees due by the residents of villages to the local watcher.

The emoluments of the watchers and their officers were of two kinds, viz., assignments of rent-free lands and the payment of fees by ryots and non-agricultural villagers. In the taluks north of the Pálár alone the assessments of the lands so assigned amounted to Rs. 97,735, the fees payable by traders and artisans to Rs. 18,645, and the ryots' harvest fees to Rs. 38,575, making a total of upwards of a lakh and-a-half.

When the Carnatic was ceded to the Company, this system was in full force in all the Government taluks, but in the estates of the zemindars and poligars various abuses had crept in. The zemindars being under obligation of military service, had enrolled many of the watchers, for the sake of economy, in their kattubadi or semi-military force, and the poligars, eager to imitate the magnificence of their more consequential neighbours, had done the same, so that in these estates a vast proportion of the village watcher body was returned as belonging to the kattubadi force. When the zemindars were relieved of their liability to military aid, the services of the so-called kattubadis were dispensed with, and the estates in consequence left with hardly any watcher establishment, an inconvenience which still exists.

In all the Government taluks, on both sides of the Pálár, the mén-kávali system was abolished in 1803, and the Collector of the Northern Division appropriated the portion of the revenue thus made available to the establishment of a small force of peons at an annual cost of Rs. 35,000. But many of the mén-kávalgárs had entertained watchers of their own, and these, upon the resumption of their employers' lands, naturally ceased to do duty, nor were their places filled up. "By this step not only many village "watchers lost all their emoluments and ceased to serve, but the "resources of others were seriously impaired. The then really "influential and respected officers of the large body of village "watcher privates were entirely set aside. The village watcher "lost the support of an influential baron in recovering his dues, "and the people lost the guarantee of an appeal to a man who "could enforce from the village watchers a punctual and effective "discharge of their liabilities and duties—men, in short, who had "been kept to work frequently by the lash and by a sense of heavy "pecuniary responsibility found themselves discharged alike of "contról and liability, while the ryot on his part withheld pay- "ment of fees for a service which was indifferently rendered. The

CHAP. XV. POLICE.

"service was neglected, and the fees justly due to the village "watcher became less and less punctually paid. The watchers "helped themselves to their neighbours' goods."[1]

Previous systems.

Thus inefficiently did the village watchers discharge their duties under the supervision of the tánádárs or the police peons entertained by the Collector in 1803. In 1808 the control of the whole body was transferred to the Judge, who was then the District Magistrate. No improvement, however, resulted from the measure, and in 1813 the Judges of the Provincial Court, Central Division, remarked upon the incompleteness of the force, the inadequacy of their pay, and the inefficiency of their service, adding that it was becoming yearly more apparent that the watchers were themselves concerned in much of the crime which occurred. In order to impose a closer supervision, the duty of superintending them was once more transferred to the Collector, and the watcher placed under the village monigar. Though on the whole the change was productive of increased efficiency, one consequence of it was that the watcher body lost much of its police character, and "readily "exchanged night patrol for the easier duty of collecting the reve- "nue." Another inconvenience experienced in exacting service was found in the undue application of the hereditary principle to the emoluments of the office. These had been treated as ordinary heritable property and divided among the various branches of the mirási family, the members of which performed the duty by turns. The lands were sometimes sub-divided permanently and sometimes rotated with the obligation of service, which fell not only upon those personally fit, but upon women and children. "This state "of things is, of course, to be traced to the great principle of "native police administration, that of responsibility for losses by "theft, without much account being taken of individual fitness for "active exertion so long as those liabilities were met, it did not "much matter whether the fund from which they were to be "made good was in an old woman's or an infant's hand."

Though these defects were early recognised, it was not until 1858 that any scheme for the complete separation of police and revenue duties was elaborated. In that year Mr. (afterwards Sir William) Robinson, as Chief Commissioner of Mofussil Police, submitted proposals for the establishment of a new police force. In addition to enlisting a regular body of constables, he proposed to re-officer the taliáris by dividing the whole district into village circles and appointing a village inspector to each, subordinate to the police inspector of the taluk, but otherwise unconnected with

[1] Report of Commissioner of Mofussil Police, dated 1858.

CHAP. XV. POLICE.

the constabulary force. This arrangement was approved, but was discontinued in 1862 after it had been in operation for nearly three years.

Previous systems.

Mr. Robinson pointed out that the mén-kávali fund of this district was incorporated with the revenue, and did not probably fall short of Rs. 1,20,000. In the zemindáris of Kálahasti and Kárvetnagar all the emoluments of the kattubadi and amaram peons were, in 1803, resumed, and a large addition to the peshkash made in lieu of all military services. Thus the funds for the restoration of the local police were to be found in the peshkash now paid by those zemindars. Elsewhere, where kattubadis still existed, he proposed to relieve them of service and to enfranchise their ináms, utilizing the revenue thus obtained (about Rs. 44,000) in the reorganization of the village establishments.

These proposals were approved and carried out in September 1859 with the best results. Though not immaculate, the police force discharges its duties as efficiently as can be expected from a body of men having small pay, great temptations and many opportunities for oppression.

Present force.

The present police force consists of one Superintendent, whose head-quarters are at Chittoor, one Assistant Superintendent, with head-quarters at Vellore, 22 Inspectors, 150 head constables and 1,061 constables. There are also 23 taliáris employed in watching certain ghát roads. There is one police officer to every 6·2 square miles and every 1,781 of the population; or, if we take only the force employed on ordinary police duties, there is one to every 7·4 square miles and 2,125 inhabitants. The corresponding figures for the whole presidency are 8·4 square miles and 2,112 inhabitants. The total cost of the police was, in 1892, Rs. 2,28,352, or one anna and eight pies per head of the population of the district. All the constables are armed with batons, 532 are provided with fire-arms and 697 have swords. All the officers and 1,051 of the 1,207 men can read and write. The work of the police, as shown by the following statistics of detection, is very good:—

Its work.

Year.	Percentage of cases detected.		Percentage of persons convicted among persons arrested.		Percentage of property recovered.	
	North Arcot.	Presidency.	North Arcot.	Presidency.	North Arcot.	Presidency.
1888 ...	**49·6**	31·3	**33·2**	27·8	**25·9**	18·9
1889 ...	**50·3**	32·6	**26·9**	28·5	**29·8**	21·8
1890 ...	**53·4**	35·2	**33·9**	29·6	**27·1**	25·5
1891 ...	**58·0**	32·9	**40·5**	30·3	**30·4**	21·3
1892 ...	**65·4**	35·5	**39·2**	30·2	**49·7**	22·7

CHAP. XV. POLICE. Its work.

The above statistics relate to all cognizable offences under the Penal Code except nuisances. The percentage of detection in some of the grave crimes is given in the marginal statement, which is based on the statistics for the five years ending 1892. It will be seen that in all cases detection was more successful in North Arcot than in the presidency as a whole. The total value of property lost through crime in the five years is estimated at two-and-a-half lakhs of rupees, of which property valued at Rs. 80,000 was recovered. This gives an annual income to criminals of Rs. 34,000, but the value as reported to the police is probably exaggerated.

Grave crime.	Percentage detected.	
	North Arcot.	Presidency.
Murder ...	38·2	28·1
Dacoity ...	58·3	30·9
House-breaking.	66·0	35·7
Robbery ...	78·8	42·2
Cattle theft ...	67·0	47·4
Other theft ...	66·2	43·6

CRIME.

The district appears at all times to have been noted for its crime. A great part of it consists of wild and hilly country, which afforded easy means of retreat and secure harbour for depredators, and almost every taluk bordered upon a foreign state, a different district, or a disorderly zemindári. For many years the zemindars were entrusted with the supervision of the police in their estates, as well as with magisterial authority, but as early as 1815 the magistrate reported that they exercised their authority "with "but feeble cognizance or control from higher authority, and there "is reason to suspect that the source of justice is here completely "tainted." The arrangement was, however, continued for upwards of a quarter of a century longer, and then gradually brought to a close. In 1831, when Government proposed to reduce the police establishment, a melancholy picture was drawn by the Magistrate of the condition of crime in the district. Dacoities were of frequent occurrence, and the gangs which collected often far outnumbered all the available police in the neighbourhood. Notices, signed 'Subadar of the torch light robbers,' were found posted near the houses of the wealthy, announcing that unless the owners delivered up their property upon a certain night, death would be the result. The robbers moved about in bands, apparently coming originally from other districts, and so little confidence was felt in the police that their demands were often unresistingly complied with. Though no other district has so many populous towns, the magistrate complained that none had so small a body of police. This appeal had the desired effect of averting the threatened reduction of the force, and small additions were from time to time made; but crime continued comparatively unchecked for many years, and men, hardly past middle age, even now narrate how the leaders of

CHAP. XV. CRIME.

robber bands entered Chittoor and other large towns in palanquins attended by followers carrying torches, and looted with impunity the houses of the rich. But little of the crime, however, seems to have been reported, and probably only notorious cases, and those in which detection was easy, ever came to light.

Recent statistics.

The amount of crime occurring in the district in each of the five years ending with 1892 is shown in the following statement:—

Year.	Offences under the Penal Code.		Offences under special and local laws.	Total.
	Grave crime.	Others.		
1888	915	2,935	2,110	5,960
1889	1,032	4,162	2,830	8,024
1890	1,155	4,243	3,779	9,177
1891	1,305	3,971	3,374	8,650
1892	1,382	3,700	3,835	8,917
AVERAGE ...	1,158	3,802	3,186	8,146

Grave crimes show a steady increase: the figures, it is true, include all cases of theft, however small the value of the property stolen, but even excluding thefts altogether, the amount of grave crime was still much higher at the end than at the beginning of the quinquennium. Nevertheless the ratio of crime to population is lower for North Arcot than for the presidency generally. Taking all cases together, there was in North Arcot one offence per annum to every 268 of the inhabitants, while for the presidency the ratio is 1 to 155. For grave crime alone the ratios are 1 to 1,883 for North Arcot and 1 to 1,754 for the presidency; for other offences under the Penal Code, 1 to 574 in North Arcot against 1 to 441 in all districts together; and for offences under special and local laws, *i.e.*, chiefly breaches of the excise, forest and municipal laws, 1 to 684 in North Arcot and 1 to 277 in the whole province.

Grave crime.

The prevalence of the more important crime is shown by the following statistics:—

Crime.	Number of cases.				
	1888.	1889.	1890.	1891.	1892.
Murder	25	21	15	14	14
Culpable homicide	1	1	...	1	1
Dacoity	...	2	3	5	2
Robbery	12	11	14	20	9
House-breaking	286	290	477	445	446
Theft { cattle	93	74	100	160	148
Theft { ordinary	514	565	620	630	561

CHAP. XV.
CRIME.
Grave crime.

There has been a marked decrease under the above heads of crime as compared with the five years 1874–78, the statistics for which were given in the first edition of this manual.

In 1892 two murders were committed under such peculiar circumstances that they deserve special notice.

The scene of the first was Vellore, the largest town in the district. Four persons—a Bairági, a jewel merchant, a Bráhman stamp-vendor and a pensioned Rájput peon—decoyed a young Bráhman girl, a friend of the Rájput's daughter and herself the daughter of a vakil, and murdered her in the prayer-room of the Rájput's house as a sacrifice for the discovery of hidden treasure. The murder was instigated by the Bairági, and it is probable that he meant it as a sacrifice to Káli, the idea of hidden treasure being put forward merely to secure the co-operation of his accomplices. In the other case a Kómati lad was murdered by profligates, who wanted the blood of a first-born child for the compounding of a love-philter.

Suicides and accidental deaths.

The number of accidental deaths has always been high in North Arcot, and it is probable that some of the suicides and deaths from drowning and snake-bite are in reality murders. During the last five years the average annual number of suicides and accidental deaths was 992; of these 432 were males and 560 were females. The ratio to the population is one death to every 2,198 inhabitants, while for the presidency as a whole it is one to 3,142. Drowning is the favourite method of suicide with females, 87 per cent. having adopted this means of terminating their existence. In the case of males, 54 per cent. of the deaths were due to hanging, while 43 per cent. drowned themselves.

Number of Suicides and Accidental Deaths, 1888–1892.

Cause of death.	Total.	Males.	Females.
Suicide ...	681	227	454
Drowning ...	3,525	1,421	2,104
Wild beasts.	17	11	6
Snakes ...	371	230	141
Other causes.	365	269	96
TOTAL ...	4,959	2,158	2,801

JAILS.

It is difficult to learn the early history of jails in the district. An inscription upon the walls of the Chittoor Jail records its construction in the year 1810. Prior to that there was probably a smaller building on the same site. Subsequently—but when cannot be discovered—another jail was opened in the Vellore fort where the civil dispensary now stands. In the year 1867 a few sub-jails were constructed at some of the taluk stations, and the fort jail was given up, as the central jail was opened. Gradually, in subsequent years, every sub-magistrate's station was supplied with a sub-jail.

CHAP. XV. JAILS.

The district jail at Chittoor was abolished in 1887 and the prisoners formerly sent there are now confined in the large jail at Vellore, which is one of the seven central prisons of the presidency.

Vellore Central Jail.

The number of convicts in this jail has steadily risen during the last five years, and in 1892 the average daily number was 1,185. In 1888 it was only 719, but in 1878 it was 1,064. The prisoners are received from several districts and not from North Arcot alone. The total gross expenditure was Rs. 69,000 in 1892, but the convicts earned Rs. 31,000, so that the net cost was Rs. 38,000. The earnings of the prisoners vary a good deal from year to year, and in the last five years they ranged from Rs. 4,836 in 1889 to Rs. 31,096 in 1892. In 1878 they amounted to no less than Rs. 45,447.

The chief industry carried on in the jail is weaving. A great variety of cloths of many patterns are woven, as well as table-cloths, gunnies, kóré mats, carpets, &c. For its carpets the central jail is famous. The manufacture was first taught to the convicts by a carpet-weaver of Ellore, and is now handed down from one set to another. The fabrics are excellently woven and find a ready sale in England and America. Carpentry, shoe-making, iron and brass work and tent-making are also carried on, and the jail is well worth a visit. By extreme industry and good conduct convicts may earn a remission not exceeding one-sixth of the total period of imprisonment awarded them, and also gratuities upon discharge not exceeding Rs. 10. During the first sixth part of their sentences each is kept under probation, from which condition he is, if well conducted, passed through three classes and may then be made a maistry, and finally an overseer. One maistry is set over every twelve convicts and one overseer over every fifty. The gradual progress through these various grades brings with it increased privileges in the way of writing to, and receiving letters from, relatives, or having personal interviews with them, so that every incentive to good conduct is held out.

During the past five years the average annual cost of a prisoner in the Vellore Jail has always been less than the average for all central prisons. In 1889 the cost was Rs. 71–8–0, but a great saving was effected in 1890, and in 1892 the cost per head was only Rs. 58–8–0, while the net cost was only Rs. 32–4–8 against Rs. 65–4–5 in 1889.

The vital statistics appended show that Vellore is on the whole a healthy jail. In 1891 the death-rate was somewhat high, but in that year it was high in most prisons, the presidency rate being no less than 35·34 per mille.

Subsidiary Jails.

It is only convicts whose sentences do not exceed one month who undergo their complete term in subsidiary jails; but persons

under trial are largely confined in these prisons, and other convicts, and even civil prisoners are occasionally lodged in them temporarily on their way to the larger jails. The average daily strength of the convicts in these prisons is only about 15; the average number of under-trial prisoners was no less than 74 in 1892, while in 1889 it was only 27; in 1890 it was 40, and in 1891 it rose to 53. This rapid and great increase is no doubt partly due to the increase of crime which is the natural outcome of the growth of population, but it also points to a higher proportion of accused persons being detained in custody instead of liberated on bail and, perhaps, to a generally greater duration of criminal proceedings. The average annual expenditure on these jails is about Rs. 4,000. The cost per head has throughout the past five years been higher in North Arcot than in the presidency generally. In 1892 the rate was Rs. 66–1–3 in North Arcot and Rs. 55–14–6 in the presidency as a whole. There are practically no earnings in subsidiary jails, the prisoners being employed for the most part in keeping the jail premises clean.

CHAP. XV. JAILS. Subsidiary Jails.

Statement showing the Average Number of Prisoners in the Central Jail at Vellore.

Statistics.

Year.	Convicts.	Under-trial.	Civil.	Total.
1888	712·81	0·03	6·41	**719·25**
1889	775·13	...	3·52	**778·65**
1890	963·78	0·09	7·35	**971·22**
1891	1,066·17	...	4·49	**1,070·66**
1892	1,179·33	0·31	5·46	**1,185·10**

Statement showing the Gross Cost of guarding and maintaining the Prisoners in the Vellore Jail and their net earnings.

——	1888.	1889.	1890.	1891.	1892.
	RS.	RS.	RS.	RS.	RS.
Rations	17,668	22,124	23,084	27,299	34,450
Establishment	27,096	24,262	26,463	25,135	24,463
Hospital charges	667	1,369	1,361	1,524	1,919
Clothing	1,818	2,425	2,063	2,553	2,356
Contingencies	3,234	5,484	4,887	5,162	6,177
Grand Total ...	**50,483**	**55,664**	**57,858**	**61,673**	**69,365**
Cash earnings of prisoners ...	14,510	4,836	10,501	26,883	31,096
Net cost to Government ...	35,973	50,828	47,357	34,790	38,269
	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
Gross cost per prisoner ...	70 3	71 8	59 9	57 10	58 8
Net cost per prisoner	50 0	65 4	48 12	32 8	32 5

Vital Statistics, Vellore Jail.

Ratio per mille of average strength.		1888.		1889.		1890.		1891.		1892.	
		Vellore.	Presidency.*	Vellore.	Presidency.*	Vellore.	Presidency.*	Vellore.	Presidency.*	Vellore.	Presidency.*
Of daily average number of sick.	Males ...	17·20	24·43	26·79	24·58	29·04	24·31	36·06	21·38	31·59	24·77
	Females ...	25·25	27·57	13·70	29·98	35·86	24·19	27·13	17·84	32·19	23·42
	TOTAL ...	**17·52**	**24·54**	**26·31**	**24·77**	**29·41**	**24·31**	**35·48**	**21·27**	**31·63**	**24·73**
Of total deaths, both in and out of hospital.	Males ...	4·34	25·80	2·67	39·14	6·53	23·89	27·95	35·31	14·36	45·70
	Females ...	...	17·51	...	22·61	38·36	22·61	29·02	36·28	28·23	28·29
	TOTAL ...	**4·17**	**25·50**	**2·57**	**38·53**	**8·24**	**23·85**	**28·02**	**35·34**	**15·19**	**45·14**

* Inclusive of sub-jails.

CHAP. XV.
JAILS.
Statistics.

Statement showing the Average Number of Prisoners confined in the Subsidiary Jails in North Arcot.

Year.	Convicts.	Under-trial.	Civil.	Total.
1888	14·92	29·21	2·59	**46·72**
1889	14·91	27·39	1·25	**43·55**
1890	14·90	40·39	0·00	**55·29**
1891	13·08	53·35	...	**66·43**
1892	16·86	74·08	...	**90·94**

Statement showing the Total Cost of guarding and maintaining the Prisoners confined in the Subsidiary Jails in North Arcot.

Year.	Rations.	Establishment.	Clothing and bedding.	Other charges.	Total.
	RS.	RS.	RS.	RS.	RS.
1888	1,500	1,584	...	819	**3,903**
1889	1,128	1,196	88	761	**3,173**
1890	1,555	883	3	790	**3,231**
1891	2,066	859	...	1,087	**4,012**
1892	3,618	949	...	1,442	**6,009**
TOTAL ...	**9,867**	**5,471**	**91**	**4,899**	**20,328**
AVERAGE ...	**1,974**	**1,094**	**18**	**980**	**4,066**

Statement showing the Cost per head of Prisoner confined in the Subsidiary Jails in North Arcot.

—	1888.		1889.		1890.		1891.		1892.	
	North Arcot.	Presidency.	North Arcot.	Presidency.	North Arcot.	Presidency.	North Arcot.	Presidency.	North Arcot.	Presidency.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Rations	33 15 10	39 4 10	26 10 8	34 4 2	28 2 0	32 5 5	31 1 7	33 2 2	39 12 7	39 13 5
Establishment	33 14 6	12 3 11	27 7 5	8 12 5	15 15 6	8 13 9	12 14 11	8 2 8	10 7 0	7 1 0
Clothing and bedding ...	...	0 7 8	5 14 5	0 10 1	0 3 3	0 9 11	...	0 14 7	...	0 9 4
Other charges	17 8 6	9 6 1	17 7 7	7 4 10	14 4 7	6 14 7	16 5 10	6 14 4	15 13 9	9 0 7
TOTAL ...	83 8 8	60 9 10	72 13 9	50 4 7	58 7 0	48 2 6	60 6 4	48 7 2	66 1 3	55 14 6

NOTE.—The average cost of establishment is calculated on the total number of prisoners, including convicts, under-trial prisoners and civil prisoners.
The average cost of diet is calculated on the total number of convicts and prisoners under trial.
The average cost of clothing is calculated on the total number of convicts.
The total cost per head of prisoner is calculated in the same way as the average cost of establishment.

CHAP. XV.

THE ARMS ACT.

As the manufacture, sale and possession of arms and ammunition are controlled by the magistracy and the police, the subject may fittingly be noticed in this chapter. No native of India is permitted to possess arms without a license, but in many instances the law is evaded, or perhaps it would be more correct to say that its provisions are neglected through ignorance. In North Arcot, however, the Act has been diligently enforced during recent years with the result that the number of ordinary licenses to possess arms and to go armed has increased from 3,236 in 1888 to 6,572 in 1892. One person in every 332 of the population now has a license, while for the presidency as a whole the ratio is only one in every 670. Registration is probably now nearly complete.

The number of arms and ammunition shops was 27 in 1892, and of these 19 were licensed for manufacture as well as for sale. These shops are inspected once a quarter and the stock checked with the sale registers. In this way an effective control is exercised over the sale of gunpowder, sulphur and arms and any unusual activity for the demand for them can be promptly investigated.

CHAPTER XVI.

REGISTRATION.

CHAP. XVI. REGISTRATION.

Number of offices.

INCLUDING the office of the District Registrar at Chittoor, there are 22 offices for the registration of assurances in North Arcot. The places at which the Sub-Registrars' offices are situated are as follow :—

Ambúr.	Kátpádi.	Sholinghur.
Arcot.	Mádarpák.	Tirupati.
Arkonam.	Palmanér.	Tiruttani.
Arni.	Pallikonda.	Tiruvettipuram.
Gudiyáttam.	Pólúr.	Vellore.
Kálahasti.	Punganúr.	Walajanagar.
Kangundi.	Puttúr.	Wandiwash.

There is thus one registration office to every 346 square miles, the average for the presidency as a whole being one to every 307 square miles. The mean distance between each office is just under 20 miles.

Documents registered.

The number of documents registered shows a steady increase : in 1888–89 it was 35,819 and by 1892–93 it had risen to 49,212. Of these 32,992 were documents of which registration is compulsory. Nearly all the documents—47,553 out of a total of 49,212—relate to immovable property, and they are for the most part deeds of sale or mortgage.

Value of property dealt with.

The total value of the property concerned was nearly 74 lakhs of rupees in 1892–93. The value of immovable property sold was 24 lakhs or an avêrage of Rs. 118 for each sale-deed; the average for the presidency is Rs. 190. The total number of such documents was 20,000, and of these 13,000 were for sales of property valued at less than Rs. 100. The average value of such deeds was Rs. 41, while in the case of sales of property valued at Rs. 100 and above the average value of each transaction was Rs. 260. There were 24,000 mortgages of immovable property, the total value being 37·39 lakhs, and the average Rs. 156, the corresponding figure for the presidency being Rs. 188. The mortgage deeds of immovable property for less than Rs. 100 numbered 13,500 and the average value was Rs. 48 or rather more than the corresponding mean for sales. This excess is also found in the case of mortgages for Rs. 100 and upwards, the average being Rs. 297 against Rs. 260 in the case of sales.

The average value of all documents registered was Rs. 150 or Rs. 3·39 per head; the average for the presidency was Rs. 203 or

Rs. 5·16 per head. In North Arcot the average has steadily declined.

Financial.

The total receipts of the registration department in the district amounted to Rs. 62,000 in 1892–93, while the expenditure was Rs. 38,500. There was thus a profit of Rs. 23,500, but it must be remembered that there are some items of indirect expenditure not included in the charges. The average excess of expenditure over income during the past five years is Rs. 22,900.

Statement of Registrations, Receipts and Expenditure in the District of North Arcot.

Year.		Total number of documents registered in Books I, III and IV.	Total amount of ordinary fees.			Total of other receipts.			Total receipts.			Total expenditure.			Surplus.		
			RS.	A.	P.	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.	RS.	A.	P.
1888–89	...	35,819	40,693	0	0	4,929	0	0	**45,622**	**0**	**0**	31,401	15	10	**14,220**	**0**	**2**
1889–90	...	36,678	42,766	3	0	5,567	13	0	**48,334**	**0**	**0**	31,653	7	1	**16,680**	**8**	**11**
1890–91	...	41,541	47,265	13	0	7,417	1	7	**54,682**	**14**	**7**	33,211	7	10	**21,471**	**6**	**9**
1891–92	...	47,704	53,133	14	0	21,376	15	5	**74,510**	**13**	**5**	35,668	3	0	**38,842**	**10**	**5**
1892–93	...	49,212	54,219	13	0	7,701	5	10	**61,921**	**2**	**10**	38,440	11	7	**23,480**	**7**	**3**

Statement showing the Average Values of Documents registered in the District of North Arcot in the years 1889–90 *to* 1892–93.

Year.	Sales of immovable property.		Mortgages of immovable property.		Leases of immovable property.			All documents registered in Books I and IV.
	Rs. 100 and above in value.	Less than Rs. 100.	Rs. 100 and above.	Less than Rs. 100.	Perpetual.	Compulsorily registered other than perpetual.	Optionally registered.	
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1889–90.	269	**43**	530	**51**	17	89	59	214
1890–91.	266	**42**	356	**50**	22	134	34	173
1891–92.	278	**42**	254	**48**	31	109	34	157
1892–93.	260	**41**	297	**48**	31	79	45	150

Statement of Registrations in the District of North Arcot for the years 1888–89 *to* 1892–93.

Registration affecting immovable property, Book I.

—	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.
Compulsory—					
Instruments of gift (section 17, clause *a*)	221	240	272	271	284
Instruments of sale or exchange—					
Of value of Rs. 100 and upwards	5,327	5,655	6,595	6,998	7.163
Of value less than Rs. 100	9,925	10,143	11,827	12,468	13,092
Instruments of mortgage of the value of Rs. 100 and upwards	6,997	7,336	8,630	9,856	10,402
Other instruments registered under section 17, clauses *b* and *c*, or section 5 of the Indian Trusts Act of 1882	507	570	601	672	657
Instruments of perpetual lease (section 17, clause *d*) ...	164	173	149	161	210
All instruments of lease (other than perpetual lease) which have been compulsorily registered under section 17, clause *d*	916	924	1,158	927	1,184
TOTAL OF COMPULSORY REGISTRATIONS ...	**24,057**	**25,041**	**29,232**	**31,353**	**32,992**
Optional—					
Instruments of sale or exchange of the value of less than Rs. 100	...	...	...	...	...
Instruments of mortgage of the value of less than Rs. 100 ...	8,645	8,559	9,398	13,177	13,510
Instruments of lease for one year or less (section 18, clause *c*)	211	278	259	272	287
Instruments of lease exempted under the proviso in section 17, clause *d*	384	432	456	483	312
Awards (section 17, clause *i*)	15	11	6	7	17
Other instruments registered under section 18, clauses *a* and *b*	214	189	197	281	331

Statement of Registrations in the District of North Arcot for the years 1888–89 *to* 1892–93—cont.

	—	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.
Registration affecting immovable property, Book I—*cont.*	Optional—*cont.*					
	Miscellaneous documents other than certified copies of decrees and orders of court	126	127	173	197	104
	Certified copies of decrees and orders of court	...	2	2	4	...
	TOTAL OF OPTIONAL REGISTRATIONS RELATING TO IMMOVABLE PROPERTY	**9,595**	**9,598**	**10,491**	**14,421**	**14,561**
	TOTAL OF REGISTRATIONS AFFECTING IMMOVABLE PROPERTY ...	**33,652**	**34,639**	**39,723**	**45,774**	**47,553**
Registration affecting movable property, Book IV.	Compulsory—					
	Instruments of gift of movable property (section 123, clause 2, Transfer of Property Act)	4	11	9	9	12
	Optional—					
	Instruments of sale, &c., of movable property	102	120	69	45	58
	Obligations for the payment of money (section 18, clause *f*).	1,271	1,062	954	1,086	910
	All other documents registered under section 18, clause *f* ...	633	701	604	589	506
	TOTAL OF REGISTRATIONS IN BOOK IV AFFECTING MOVABLE PROPERTY	**2,010**	**1,894**	**1,636**	**1,729**	**1,486**
Number of wills (section 18, clause *e*) registered in Book III		156	145	182	201	172
Written authorities to adopt other than those conferred by will, Book III ...		1	...	...	...	1
	Grand Total ...	**35,819**	**36,678**	**41,541**	**47,704**	**49,212**

Statement showing the Aggregate Value of Property transferred by Documents registered in the District of North Arcot.

	—		1888–89.	1889–90.	1890–91.	1891–92.	1892–93.
Affecting immovable property.	Deeds of gift—						
	Number of deeds	No.	221	240	272	271	284
	Aggregate value	Rs.	60,185	66,328	56,441	56,104	61,384
	Deeds of sale or exchange (Rs. 100 and upwards)—						
	Number of deeds	No.	5,327	5,655	6,595	6,998	7,163
	Aggregate value	Rs.	13,40,623	15,22,655	17,55,521	19,41,696	18,62,839
	Deeds of sale or exchange (less than Rs. 100)—						
	Number of deeds	No.	9,925	10,143	11,827	12,468	13,092
	Aggregate value	Rs.	4,33,855	4,40,244	5,01,448	5,24,502	5,36,972
	Perpetual leases—						
	Number of deeds	No.	164	173	149	161	210
	Value of annual rents	Rs.	4,263	3,559	3,330	4,931	6,574
	Leases other than perpetual leases which have been compulsorily registered—						
	Number of deeds	No.	916	924	1,158	927	1,184
	Value of annual rents	Rs.	63,080	82,264	1,55,531	1,01,142	93,737
	All optionally registered leases—						
	Number of deeds	No.	595	710	715	755	599
	Aggregate value	Rs.	16,939	41,851	24,392	25,750	27,205
	Amount of premium or fines paid on such leases	„	12,442	6,384	7,193	2,610	3,882
	Deeds of mortgage of Rs. 100 and upwards—						
	Number of deeds	No.	6,997	7,336	8,630	9,856	10,402
	Aggregate value	Rs.	23,21,630	38,90,411	30,72,736	25,06,963	30,86,015

Statement showing the Aggregate Value of Property transferred by Documents registered in the District of North Arcot—cont.

—			1888–89.	1889–90.	1890–91.	1891–92.	1892–93.
Affecting immovable property—*cont.*	Deeds of mortgage (less than Rs. 100)—						
	Number of deeds	No.	*8,645*	*8,559*	*9,398*	*13,177*	*13,510*
	Aggregate value	Rs.	4,39,028	4,37,406	4,74,028	6,37,694	6,53,006
	All other deeds not mentioned above, except certified copies of decrees and orders of court—						
	Number of deeds	No.	*862*	*897*	*977*	*1,157*	*1,109*
	Aggregate value	Rs.	7,91,303	6,71,567	5,88,405	10,57,884	5,79,887
	Certified copies of decrees and orders of court—						
	Number of documents	No.	...	*2*	*2*	*4*	...
	Aggregate value	Rs.	...	285	592	5,774	...
	TOTAL ... Number of deeds ...	No.	*33,652*	*34,639*	*39,723*	*45,774*	*47,553*
	TOTAL ... Aggregate value ...	Rs.	**54,83,348**	**71,62,954**	**66,39,617**	**68,65,050**	**69,11,501**
Affecting movable property.	Deeds of gift—						
	Number of deeds	No.	*4*	*11*	*9*	*9*	*12*
	Aggregate value	Rs.	322	2,635	3,089	1,827	2,895
	Deeds of sale, &c.—						
	Number of deeds	No.	*102*	*120*	*69*	*45*	*58*
	Aggregate value	Rs.	5,642	9,551	10,357	9,023	7,755

Statement showing the Aggregate Value of Property transferred by Documents registered in the District of North Arcot—cont.

			1888–89.	1889–90.	1890–91.	1891–92.	1892–93.
Affecting movable property—*cont.*	Obligations for the payment of money— Number of deeds ...	No.	*1,271*	*1,062*	*954*	*1,086*	*910*
	Aggregate value ...	Rs.	2,35,117	3,08,917	2,29,923	2,74,476	1,96,757
	Other instruments registered in Book IV— Number of deeds ...	No.	*633*	*701*	*604*	*589*	*506*
	Aggregate value ...	Rs.	2,25,759	3,28,838	2,52,613	3,08,027	2,72,575
	TOTAL ... Number of deeds ...	No.	*2,010*	*1,894*	*1,636*	*1,729*	*1,486*
	TOTAL ... Aggregate value ...	Rs.	**4,66,840**	**6,49,941**	**4,95,982**	**5,93,353**	**4,79,982**
	Grand Total of Documents ...	No.	*35,662*	*36,533*	*41,359*	*47,503*	*49,039*
	Grand Total of Aggregate Value ...	Rs.	**59,50,188**	**78,12,895**	**71,35,599**	**74,58,403**	**73,91,483**

CHAPTER XVII.

LOCAL GOVERNMENT.

CHAP. XVII. MUNICIPALITIES.

THERE are four towns under municipal government in the North Arcot district :—

Town.	Constituted a municipality in	Population.	Number of councillors.		Whether Chairman nominated or elected.
			Nominated.	Elected.	
Vellore	1866	44,925	5	15	Elected.
Gudiyáttam	1886	18,747	12	...	Nominated.
Tirupati	1886	14,242	12	...	...
Wálájápet	1866	10,485	16	...	...

An attempt was made in 1854 to constitute Vellore a municipality, but the step excited such opposition, all shops being closed and other signs of disaffection being manifested, that the project was abandoned. The following statement shows the receipts and expenditure of each municipality during the five years 1888–89 to 1892–93 :— Finances.

Year.	Income from taxation, including tolls.	Income from other sources.	Total income.	Expenditure.
Gudiyáttam.	RS.	RS.	RS.	RS.
1888-89	8,198	4,441	**12,639**	12,559
1889-90	9,121	5,606	**14,727**	14,962
1890-91	10,461	5,578	**16,039**	14,872
1891-92	9,421	5,694	**15,115**	17,192
1892-93	10,256	6,247	**16,503**	17,908
TOTAL ...	**47,457**	**27,566**	**75,023**	**77,493**
Tirupati.				
1888-89	9,846	2,960	**12,806**	13,302
1889-90	7,731	7,117	**14,848**	14,828
1890-91	9,853	2,205	**12,058**	14,112
1891-92	9,397	3,977	**13,374**	12,768
1892-93	6,273	4,381	**10,654**	10,960
TOTAL ...	**43,100**	**20,640**	**63,740**	**65,970**
Vellore.				
1888-89	25,720	26,327	**52,047**	48,662
1889-90	29,423	27,472	**56,895**	61,222
1890-91	29,758	27,381	**57,139**	53,692
1891-92	25,042	27,251	**52,293**	50,130
1892-93	25,314	27,792	**53,106**	59,471
TOTAL ...	**1,35,257**	**1,36,223**	**2,71,480**	**2,73,177**

CHAP. XVII.
MUNICIPALITIES.

Year.	Income from taxation, including tolls.	Income from other sources.	Total income.	Expenditure.
Wálájápet.	RS.	RS.	RS.	RS.
1888–89	7,436	7,705	15,141	15,046
1889–90	7,882	6,410	14,292	15,256
1890–91	7,826	5,917	13,743	13,999
1891–92	8,484	5,228	13,712	13,239
1892–93	8,448	6,533	14,981	14,533
TOTAL ...	40,076	31,793	71,869	72,073

During the five years the expenditure exceeded the receipts in all cases, but the difference does not exceed the opening balance of 1888-89. The closing balances of 1892–93 were Gudiyáttam Rs. 1,501, Tirupati Rs. 753, Vellore Rs. 26,322 and Wálájápet Rs. 945.

Owing to a change in the system of accounts it is not possible to give details of income and charges except for the last two years: a statement containing these particulars is appended.

Taxation.

The principal taxes are those on buildings and lands, animals and vehicles, and professions and trades. Tolls also give a considerable amount in all cases. The tax on buildings and lands is 5 per cent. on the annual rental in Gudiyáttam and Vellore, but in Tirupati and Wálájápet the maximum rate of 7½ per cent. is levied. Lands unoccupied by houses are taxed at the rate of 3 pies for every 80 square yards. The average assessment per house in 1892-93 varied from Rs. 1-0-5 in Vellore to Rs. 1-11-1 in Tirupati. The incidence per house in all district municipalities of the presidency is rather more than Rs. 2-2-0. The incidence of the tax on arts and professions and trades was highest in Vellore, where it stood at Rs. 4-0-7 per head of the population taxed. In Tirupati it was Rs. 3-10-5, but in Gudiyáttam and Wálájápet it was only Rs. 2-7-1 and Rs. 2-11-9 respectively. In 1890–91 the rate per head in Wálájápet was as high as Rs. 4-13-4, but this assessment was never realized, nearly half of the total amount being written off as irrecoverable. The average incidence of this tax in all district municipalities of the presidency is about Rs. 4-2-0 per head of the population paying it.

For all taxation together, including tolls, the average incidence per inhabitant during the five years 1888-89 to 1892-93 varies from 12 annas and 3 pies in Wálájápet to 8 annas and 1 pie in Gudiyáttam, the average for the presidency being 11 annas and 11 pies. If tolls be excluded, the incidence varies from 8 annas and 3 pies in Wálájápet to 6 annas and 4 pies in Vellore, while the average for the presidency is 8 annas and 7 pies. The principal sources of income other than taxation are fees for the use of markets and slaughter-houses, license fees, school fees, fees

CHAP. XVII. MUNICIPALITIES. Taxation.

for the use of cart-stands and grants from Government and Local Funds in aid of education, medical institutions, &c. The last item, extraordinary and debt, chiefly consists of deposits, which appear on both sides of the account. The following table gives the average incidence during the five years 1888–89 to 1892–93 for the principal taxes and the total income; the average for all district municipalities is added for comparison :—

Municipality.	Incidence per house of house tax.	Incidence per assessee of arts tax.	Incidence per inhabitant of all taxation. Including tolls.	Incidence per inhabitant of all taxation. Excluding tolls.	Incidence per inhabitant of total income.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Gudiyáttam ...	1 1 0	2 10 0	0 8 1	0 6 5	0 11 3
Tirupati	1 2 11	3 9 5	0 9 8	0 7 6	0 12 0
Vellore	0 15 4	4 0 10	0 9 8	0 6 4	1 1 9
Wálájápet	0 15 10	3 3 3	0 12 3	0 8 4	1 4 4
All district municipalities	2 0 9	4 3 3	0 11 11	0 8 7	1 4 0

Expenditure.

The principal items of expenditure are conservancy, public works (chiefly roads), public instruction, hospitals and dispensaries, and lighting. In Tirupati the hospital is no charge on municipal funds, as the cost of its maintenance is borne by the Mahant. Against Vellore a considerable sum (about Rs. 4,500) appears under the item 'Dâk bungalows and serais.' No dâk bungalows are maintained by any of these municipalities, and this amount represents the expenditure on chatrams. There is comparatively little expenditure on water-supply or drainage, as there are no regular systems in any of the towns. Schemes for both water-supply and drainage for Vellore and of drainage for Tirupati have, however, been investigated and estimates prepared. The cost of the Vellore water-supply project (Rs. 3,13,000) is considered prohibitive and the drainage scheme cannot be proceeded with till a constant supply of water is ensured. The existing water-supply and drainage are considered by the Sanitary Commissioner to be unsatisfactory in all the four towns. Vellore has 25 miles of road and 578 street lamps; Gudiyáttam has 19 miles of road and 210 lamps; Tirupati 14 miles and 131 lamps, and Wálájápet 12 miles and 74 lamps. The number of lamps per mile of road is 23 in Vellore, 11 in Gudiyáttam, 9 in Tirupati and 6 in Wálájápet. The average for the presidency is 8. There are 25 public latrines in Vellore, 11 in Gudiyáttam, 11 in Tirupati and 8 in Wálájápet. In Vellore the proportion is one latrine to every 1,797 inhabitants, in Gudiyáttam one to 1,704, in Tirupati one to 1,295 and in Wálájápet one to 1,311. The presidency average is one to 1,531. Conservancy is said to be fair in Vellore and Tirupati, indifferent in Gudiyáttam and defective in Wálájápet.

Statement showing in detail the Incomes of the Municipalities in the District of North Arcot.

Items.	Gudiyáttam.		Tirupati.		Vellore.		Wálájápet.	
	1891–92.	1892–93.	1891–92.	1892–93.	1891–92.	1892–93.	1891–92.	1892–93.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
A.—Municipal Rates and Taxes—								
Tax on houses and lands.	2,895	3,566	3,612	2,709	7,794	7,277	2,684	2,779
Tax on animals and vehicles	1,441	1,478	1,718	1,385	3,488	3,848	1,723	1,603
Tax on professions and trades	2,332	2,877	1,943	1,129	5,960	5,922	1,772	1,639
Tolls (on roads and ferries)	2,753	2,335	2,124	1,050	7,800	8,267	2,305	2,427
TOTAL A. ...	9,421	10,256	9,397	6,273	25,042	25,314	8,484	8,448
B.—Realisations under Special Acts	...	...	...	...	...	140	...	...
C.—Revenue derived from municipal property and powers apart from taxation—								
Rents of lands, houses, &c.	198	60	91	113	445	705	106	48
Sale-proceeds of lands and produce of lands.	33	101	177	42	225	362	51	85
Conservancy receipts (other than rates and taxes)	137	101	293	212	...	...	411	1,122
Fees and revenues from Educational institutions	840	657	108	169	637	746	1,765	1,643
Fees and revenues from Medical institutions ...	...	...	...	...	9	18	...	1
Fees and revenues from markets and slaughter-houses	1,916	1,836	403	812	8,870	10,342	845	797
Other fees	219	77	325	140	1,609	1,535	285	223
Fines under Municipal and other Acts ...	92	96	68	64	160	347	52	56
Interest of investments.	...	...	...	...	309	212	...	...
TOTAL C. ...	3,435	2,928	1,465	1,552	12,264	14,267	3,545	3,975
D.—Grants and Contributions—								
From Government ...	...	15	43	...	8,376	7,016	60	59
From Local Funds ...	580	580	...	...	1,300	1,300	579	630
Others	...	...	1,060	65	...	...	...	1
TOTAL D. ...	580	595	1,103	65	9,676	8,316	639	690
E.—Miscellaneous—								
Recoveries on account of services rendered to private individuals ...	111	64	19	360	647	610	45	135
Other items	86	23	14	19	17	29	11	187
TOTAL E. ...	197	87	33	379	664	639	56	322
F.—Extraordinary and Debt.	1,482	2,637	1,376	2,385	4,647	4,430	988	1,546
Grand Total ...	15,115	16,503	13,374	10,654	52,293	53,106	13,712	14,981

Statement showing in detail the Expenditure of the Municipalities in the District of North Arcot.

—	Gudiyáttam. 1891–92.	Gudiyáttam. 1892–93.	Tirupati. 1891–92.	Tirupati. 1892–93.	Vellore. 1891–92.	Vellore. 1892–93.	Wálájápet. 1891–92.	Wálájápet. 1892–93.
A.—General Administration and Collection Charges—	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
General Administration.	1,152	1,113	680	677	2,902	2,900	963	945
Collection of taxes ...	712	535	536	517	1,338	1,423	499	885
Collection of tolls ...	...	42	661	...	...	...	709	631
Refunds	12	19	...	1	88	23	9	...
TOTAL A. ...	1,876	1,709	1,877	1,195	4,328	4,346	2,180	2,461
B.—Public Safety—								
Fire	...	...	...	...	14	...	5	...
Lighting	1,160	1,107	1,007	936	2,620	2,822	560	635
Rewards for destruction of wild animals and snakes	15	24	...	39	...	...	...	...
TOTAL B. ...	1,175	1,131	1,007	975	2,634	2,822	565	635
C.—Public Health and Convenience—								
Water-supply	544	485	787	190	733	496	334	421
Drainage	421	117	18	...	15	1,241	...	41
Conservancy	3,424	3,199	3,172	3,406	12,612	12,277	2,576	2,708
Hospitals and dispensaries	1,137	1,053	...	...	6,957	5,924	1,153	1,095
Vaccination	337	356	319	366	458	658	134	153
Markets and slaughter-houses	114	98	...	126	374	384	36	79
Dâk bungalows and serais	...	...	...	...	4,543	4,435	50	...
Arboriculture	60	60	229	164	...	...	124	119
Registration of births and deaths	194	120	88	83	520	562	149	179
Public works	3,023	4,222	2,011	618	5,512	13,919	861	1,399
TOTAL C. ...	9,254	9,710	6,624	4,953	31,724	39,896	5,417	6,194
D.—Public Institutions ...	2,761	2,150	1,032	1,306	6,330	6,910	3,396	3,313
E.—Contributions for general purposes	65	82	49	71	286	292	58	78
F.—Miscellaneous	544	554	444	222	936	780	605	510
G.—Extraordinary and Debt.	1,517	2,572	1,735	2,238	3,892	4,425	1,018	1,342
Grand Total ...	17,192	17,908	12,768	10,960	50,130	59,471	13,239	14,533

Statement showing the Incidence of the House Tax in each of the five years ending 1892–93.

Name of municipality.	Year.	Houses assessed.														
		Under 8 As.		8 As. to Rs. 1–8–0.		Rs. 1–8–0 to Rs. 5.		Rs. 5 to Rs. 15.		Rs. 15 to Rs. 30.		Above Rs. 30.		Total.		Incidence per house.
		Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	
			RS.		RS.		RS.		RS.		RS.		RS.		RS.	RS. A. P.
Gudiyáttam.	1888–89 ...	544	205	1,726	1,448	508	1,059	12	83	2	40	...	...	2,792	2,835	1 0 3
	1889-90 ...	506	189	1,927	1,633	429	1,031	8	58	1	25	...	...	2,871	2,936	1 0 4
	1890–91 ...	514	192	1,793	1,426	567	1,211	18	109	1	25	...	...	2,893	2,963	1 0 5
	1891–92 ...	539	202	1,840	1,459	567	1,206	20	125	...	...	1	60	2,967	3,052	1 0 6
	1892–93 ...	324	170	1,738	1,473	664	1,483	37	225	...	...	1	60	2,764	3,411	1 3 9
Tirupati ...	1888-89 ...	1,037	361	1,470	1,110	576	1,279	43	274	...	...	...	...	3,126	3,024	0 15 6
	1889-90 ...	942	353	1,378	1,089	646	1,431	60	398	...	...	...	...	3,026	3,271	1 1 4
	1890–91 ...	963	332	1,380	1,066	665	1,535	56	376	...	...	...	...	3,064	3,309	1 1 3
	1891–92 ...	960	332	1,393	1,077	662	1,529	59	394	...	...	...	...	3,074	3,332	1 1 4
	1892–93 ...	527	231	1,388	1,111	1,100	2,742	135	978	9	164	2	127	3,161	5,353	1 11 1
Vellore ...	1888–89 ...	2,355	751	3,422	2,587	857	1,965	75	488	16	298	1	30	6,726	6,119	0 14 7
	1889-90 ...	2,364	763	3,441	2,595	863	1,972	82	522	15	280	1	30	6,766	6,162	0 14 7
	1890-91 ...	2,235	766	3,696	2,827	982	2,352	60	507	32	315	1	30	7,006	6,797	0 15 6
	1891-92 ...	2,290	773	3,720	2,892	1,002	2,338	77	528	15	297	1	30	7,105	6,858	0 15 5
	1892–93 ...	2,199	746	3,786	2,967	1,104	2,536	106	691	19	368	2	80	7,216	7,388	1 0 5
Wálájápet ...	1888–89 ...	561	218	1,278	1,034	301	679	7	54	...	...	1	36	2,148	2,021	0 15 1
	1889–90 ...	536	191	1,295	1,020	308	689	6	46	...	...	1	36	2,146	1,982	0 14 9
	1890–91 ...	527	214	1,311	1,062	311	691	7	58	...	...	1	67	2,157	2,092	0 15 6
	1891–92 ...	525	214	1,304	1,055	312	690	7	58	...	...	1	67	2,149	2,084	0 15 6
	1892-93 ...	246	97	1,389	1,177	425	988	9	73	...	...	1	68	2,070	2,403	1 2 7

Statement showing the Number of Persons assessed under each class of the schedule to the tax on Arts in each of the five years ending 1892-93.

Name of Municipality.	Year.	Persons assessed.																		
		Class I.		Class II.		Class III.		Class IV.		Class V.		Class VI.		Class VII.		Class VIII.		Total.		Incidence per head.
		Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	
			RS.		RS.		RS.		RS.		RS.		RS.		RS.		RS.		RS.	RS. A. P.
Gudiyáttam.	1888-89 ...	...	...	7	212	31	377	45	330	133	527	202	503½	3	6	584	540	1,005	2,495½	...
	1889-90 ...	...	...	3	150	23	428	46	429	143	710	217	590	4	6	528	509	964	2,822	2 14 10
	1890-91 ...	...	...	4	150	16	361	45	462	124	690	247	687	2	4	936	852	1,374	3,206	2 5 4
	1891-92 ...	...	...	2	100	10	250	49	558	96	576	226	676	4	6	415	413	802	2,579	3 3 5
	1892-93 ...	...	...	3	125	4	100	50	576	105	630	253	757	4	7	812	811	1,231	3,006	2 7 1
Tirupati ...	1888-89 1889-90	The tax was not levied in this municipality.																		
	1890-91 ...	...	...	5	150	37	474	39	356	61	298	185	460	11	22	235	234	573	1,994	3 7 8
	1891-92 ...	...	...	2	100	28	605	35	375	56	333	163	484	12	24	322	321	618	2,242	3 10 1
	1892-93 ...	...	...	1	50	32	611	25	289	57	339	134	399	10	19	287	287	546	1,994	3 10 5
Vellore ...	1888-89 ...	...	...	2	100	44	1,100	128	1,536	196	1,176	467	1,401	18	36	665	664	1,520	6,013	3 15 4
	1889-90 ...	1	100	2	100	47	1,150	144	1,716	225	1.338	473	1,413	26	52	688	686	1,606	6,555	4 1 4
	1890-91 ...	...	...	4	200	55	1,375	171	2,052	219	1,314	496	1,488	24	48	735	735	1,704	7,212	4 3 9
	1891-92 ...	...	...	5	250	43	1,075	132	1,584	212	1,272	486	1,458	20	40	728	728	1,626	6,407	3 15 1
	1892-93 ...	...	...	11	550	37	925	131	1,620	190	1,110	473	1,394	17	34	709	697	1,568	6,330	4 0 7
Wálájápet ...	1888-89 ...	...	..	3	150	7	175	11	132	27	162	98	292	10	20	291	291	447	1,222	2 11 9
	1889-90 ...	...	...	2	100	3	75	11	132	36	216	126	373	7	13	276	276	461	1,185	2 9 2
	1890-91 ...	...	...	3	150	59	1,475	15	180	38	228	129	387	5	10	320	320	569	2,750	4 13 4
	1891-92 ...	...	...	2	100	8	164	35	396	45	264	158	472	5	9	340	340	593	1,745	2 15 1
	1892-93 ...	...	...	2	100	7	175	21	240	60	360	110	325	5	7	373	372	578	1,579	2 11 9

CHAP. XVII.
LOCAL BOARDS.

Local affairs outside the four municipal towns are administered by the district board with the assistance of four taluk boards and 15 unions. The population (1891) of the district board's jurisdiction is 2,092,088. The board consists of a president (the Collector) and 32 members, one of whom is appointed vice-president. The 32 members consist of the four divisional officers, who are *ex-officio* members, 12 nominated members and 13 members who are elected by the taluk boards. The four taluk boards are Chittoor, Vellore, Ranipet and Árni, and their local area coincides with that of the four revenue divisions of the district. The Ranipet board has 16 members, but each of the others consists only of 12. These are all nominated. The following are the 15 unions:—

Statement showing the Constitution of Union Panchayáts in 1891–92.

Taluk boards.	Union pancháyats.	Maximum number of members sanctioned.	Number of members on 31st March 1892.			
			Official.		Non-official.	Total.
			Village officers.	Others.		
1	2	3	4	5	6	7
1. Arni ...	1. Arni	12	3	1	8	12
	2. Pólúr	9	2	2	5	9
	3. Wandiwash ...	7	1	1	5	7
2. Chittoor ...	1. Chittoor ...	12	4	2	6	12
	2. Palmanér ...	7	1	1	5	7
3. Ranipet ...	1. Arkonam ...	10	1	1	7	9
	2. Chendragiri ...	10	2	1	7	10
	3. Kálahasti ...	10	1	2	7	10
	4. Ranipet ...	1	2	...	5	7
	5. Sholinghur ...	11	1	1	9	11
	6. Tiruttani ...	9	2	1	6	9
4. Vellore ...	1. Arcot	13	4	2	7	13
	2. Ambúr	12	2	2	8	12
	3. Kuppam ...	12	1	2	9	12

Finance.

The following statement shows at a glance the income and expenditure of the local boards. If greater detail is required reference can be made to the tables at the end of the chapter:—

Receipts.

Statement of Local Fund Receipts and Charges (Average of 1887–88 *to* 1890–91).

—	Receipts.	Percentage.	—	Charges.	Percentage.
	RS.			RS.	
Road-cess ...	2,89,000	73·63	Communications.	1,53,500	42·46
Tolls	28,500	7·26	Other public works & establishments.	57,500	15·91
House-tax ...	8,500	2·16	Education ...	56,500	15·63
School-fees ...	18,000	4·59	Medical services and sanitation ...	73,000	20·19
Contributions from Provincial ...	14,000	3·57			
Other items ...	34,500	8·79	Other items ...	21,000	5·81
TOTAL ...	3,92,500	100·00	TOTAL ...	3,61,500	100·00

The average annual income of the district and taluk boards and the unions during the five years 1887–88 to 1891–92 is Rs. 3,82,407, and the average annual expenditure is Rs. 3,92,118. The last year of the series was, however, a very unfavourable one, and while on the one hand the collection of some of the taxes had to be postponed, there was on the other a heavy extraordinary charge for relief works. For the four years ending with 1890–91 the average annual income was Rs. 3,92,313 and the average expenditure amounted to Rs. 3,61,435. The incidence per head of the population is for income 3 annas and for expenditure 2 annas and 9 pies. Of the total income 46·91 per cent. went to the district board and 53·09 per cent. to the taluk boards and unions, while of the expenditure the former bore 37·43 per cent. and the latter 62·57 per cent. The chief source of income is the road-cess, which is levied on all occupied land at the rate of one anna in the rupee on the rental. This tax gives about Rs. 2,90,000, or 74 per cent. of the total revenue. The house-tax and tolls are the only other taxes.

In 1891–92 the house-tax was in force in seven unions and the average rate per house taxed was 11 annas and 8 pies, the average for all unions in the presidency being 8 annas and 9 pies. The tax produced over Rs. 11,000 in 1891–92 against only Rs. 5,700 in 1887–88. Tolls yield about Rs. 28,000, of which half is contributed by municipalities as the local fund share of tolls collected at the municipal gates. There are eight toll-gates under the District Boards Act of 1884. In 1887–88 there was only one and the receipts from it were less than Rs. 3,000.

The total income from taxation is on an average about Rs. 3,25,000. This gives an incidence of 2 annas 6 pies per head of the population, the average for the presidency being two pies more than this.

CHAP. XVII. LOCAL BOARDS. Receipts.

The principal sources of income, other than taxation, are contributions from provincial funds chiefly in aid of education, school-fees, market and fishery rents, and avenues. The receipts from market rents, fishery rents and avenues are shown under 'miscellaneous' in the appended statement. The receipts from avenues during each of the five years are shown on the margin. In 1887–88 there were 964 miles of road with avenues; in 1891–92 the length was 1,015 miles. The number of trees is 184,814. The revenue per mile is Rs. 4·32 and the amount for each thousand trees is Rs. 23·74. These rates compare unfavourably with those for Salem, Tanjore and South Arcot :—

Receipts from avenues.

	RS.
1887–88	4,634
1888–89	5,145
1889–90	4,631
1890–91	4,213
1891–92	4,387

Revenue from Avenues in 1891–92.

District.	Revenue.			Number of trees per mile of avenue.
	Total.	Per 1,000 trees.	Per mile.	
	RS.	RS.	RS.	
Salem	31,965	144·59	25·11	174
Tanjore	10,242	40·13	8·45	211
South Arcot	8,495	41·27	8·14	197
North Arcot	4,387	23·74	4·32	182

The receipts under 'Medical' are comparatively large, as they include the contribution from the Mahant of Tirupati for the maintenance of the hospital at that place.

Expenditure.

More than half the expenditure of the local boards is on account of roads and buildings and the engineering establishment required for their maintenance. Particulars of the communications of the district will be given in a separate chapter, but it may be stated here that there are 1,710 miles of road in the district, while in 1879 the total length was 1,261 miles only. The mean expenditure on roads during the last five years was Rs. 128 a mile. The ratio between the cost of the engineering establishment and the amount expended fluctuates a good deal as noted on the margin; for the spreading of materials is often stopped owing to an unfavourable season. The bulk of the expenditure on roads is for repairs. The subjects of education, hospitals and dispensaries and vaccination will be dealt with separately.

Percentage of establishment to total charges.

1887–88	20·57
1888–89	18·41
1889–90	14·77
1890–91	20·03
1891–92	13·82

Statement showing the Receipts under Local Funds.

Year.	Rates and Taxes.														
	Cess on lands.			House-tax.			Tolls.						Total.		
							Under Act V of 1884.			Contributions from municipalities.					
	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1887–88 ...	1,45,098	1,45,098	2,90,196	...	5,705	5,705	2,836	...	2,836	14.504	...	14,504	1,62.438	1,50.803	3,13,241
1888–89 ...	1,45,361	1,45.360	2,90,721	...	6,973	6,973	3,077	...	3,077	13,352	...	13,352	1,61,790	1,52,333	3,14,123
1889–90 ...	1,47,645	1,47,646	2,95,291	...	9,402	9,402	22,660	...	22.660	14,305	...	14,305	1,84,610	1,57,048	3,41,658
1890–91 ...	1,39,760	1,39,759	2,79,519	...	11,327	11,327	27,416	...	27,416	16,138	...	16,138	1,83,314	1,51,086	3,34,400
1891–92 ...	1,16,887	1,16,887	2,33,774	...	11,201	11,201	14,731	...	14,731	11,767	...	11,767	1,43,385	1,28,088	2,71,473
TOTAL ...	6,94,751	6;94,750	13,89,501	...	44,608	44,608	70,720	...	70,720	70,066	...	70,066	8,35,537	7,39,358	15,74,895
AVERAGE ...	1,38,950	1,38,950	2,77,900	...	8,922	8,922	14,144	...	14,144	14,013	...	14,013	1,67,107	1,47,872	3,14,979

Statement showing the Receipts under Local Funds—cont.

Year.	Education.			Medical.			Interest on investments.			Miscellaneous.			Public works.		
	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1887-88 ...	1,485	16,079	**17,564**	46	2,493	**2,539**	1,061	1	**1,062**	3,651	20,482	**24,133**	41	271	**312**
1888-89 ...	1,127	17,399	**18,526**	83	4,277	**4,360**	682	...	**682**	3,315	21,120	**24,435**	1,250	444	**1,694**
1889-90 ...	1,041	17,130	**18,171**	27	5,239	**5,266**	1	...	**1**	3,814	23,700	**27,514**	3,366	583	**3,949**
1890-91 ...	1,224	16,048	**17,272**	134	4,336	**4,470**	...	...	...	2,638	21,688	**24,326**	349	3,859	**4,208**
1891-92 ...	1,115	15,525	**16,640**	85	4,476	**4,561**	12	1	**13**	2,089	18,331	**20,420**	291	1,394	**1,685**
TOTAL ...	**5,992**	**82,181**	**88,173**	**375**	**20,821**	**21,196**	**1,756**	**2**	**1,758**	**15,507**	**1,05,321**	**1,20,828**	**5,297**	**6,551**	**11,848**
AVERAGE ...	**1,198**	**16,436**	**17,634**	**75**	**4,164**	**4,239**	**351**	**1**	**352**	**3,102**	**21,064**	**24,166**	**1,059**	**1,310**	**2,369**

CHAP. XVII. LOCAL BOARDS. Statistics.

Statement showing the Receipts under Local Funds—cont.

Year.	Contributions from Provincial Funds.			Contributions from Special Funds.			Investments.			Loans.	Allotments.		Debt head Receipts.			Total Receipts.		
	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	Taluk.	District.	Taluk and Union.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.*
	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1887-88 ...	4,462	10,844	**15,306**	2,678	...	**2,678**	...	...	...	...	...	20,361	7	...	**7**	1,75,869	2,21,334	**3,76,842**
1888-89 ...	1,368	9.834	**11,202**	1,209	...	**1,209**	...	...	...	...	...	22,150	...	...	...	1,70,824	2.27,557	**3,76,231**
1889-90 ...	371	12,236	**12,607**	...	...	...	...	...	...	...	...	29.713	566	...	**566**	1,93,796	2,45,649	**4.09,732**
1890-91 ...	3,033	13,679	**16,712**	...	...	...	...	...	...	...	...	36,700	5,016	44	**5,060**	1,95,708	2,47,440	**4,06,448**
1891-92 ...	14,326	9,735	**24,061**	...	...	...	...	...	...	...	...	58,778	3,931	..	**3,931**	1,65,234	2,36,328	**3,42,784**
TOTAL ...	**23,560**	**56,328**	**79,888**	**3,887**	...	**3,887**	...	...	...	...	...	1,67,702	**9,520**	**44**	**9,564**	**9,01,431**	**11,78,308**	**19,12,037**
AVERAGE ...	**4,712**	**11,266**	**15,978**	**777**	...	**777**	...	...	...	...	...	**33,540**	**1,904**	**9**	**1,913**	**1,80,286**	**2,35,661**	**3,82,407**

* The figures in this column do not include allotments from district to taluk or from taluk to union funds, or payments from district to taluk funds on account of loans from taluk fund balances.

Statement showing the Charges under Local Funds.

Year.	Public Works.									Education.			Medical services, Sanitation, &c.		
	Communications.			Other works.			Total.								
	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1887-88	69,053	72,748	**1,41,801**	19,901	29,246	**49,147**	88,954	1,01,994	**1,90,948**	8,813	41,309	**50,122**	20,684	40,393	**61,077**
1888-89	73,790	83,209	**1,56,999**	22,565	38,941	**61,506**	96,355	1,22,150	**2,18,505**	7,767	44,064	**51,831**	20,413	50,001	**70,414**
1889-90	73,695	95,293	**1,68,988**	21,334	41,504	**62,838**	95,029	1,36,797	**2,31,826**	8,708	48,190	**56,898**	19,713	57,311	**77,024**
1890-91	68,119	78,905	**1,47,024**	21,874	34,675	**56,549**	89.993	1,13,580	**2,03,573**	10,284	56,192	**66,476**	20,537	63,644	**84,181**
1891-92	1,11,952	1,34,948	**2,46,900**	24,026	46,707	**70,733**	1,35,978	1,81,655	**3,17,633**	11,559	61,317	**72,876**	20,963	76.965	**97,928**
TOTAL ...	**3,96,609**	**4,65,103**	**8,61,712**	**1,09,700**	**1,91,073**	**3,00,773**	**5,06,309**	**6,56,176**	**11,62,485**	**47,131**	**2,51,072**	**2,98,203**	**1,02,310**	**2,88,314**	**3,90,624**
AVERAGE ...	**79,322**	**93,021**	**1,72,343**	**21,940**	**38,215**	**60,155**	**1,01,262**	**1,31,235**	**2,32,497**	**9,426**	**50,214**	**59,640**	**20,462**	**57,663**	**78,125**

CHAP. XVII. LOCAL BOARDS. — Statistics.

Statement showing the Charges under Local Funds—cont.

Year.	Miscellaneous.			Total.			Allotments.		Debt head charges.			Total charges.		
	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	District.	Taluk and Union.	Total.	District.	Taluk and Union.	Total.*
	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1887-88	10,365	6,609	**16,974**	1,49,177	1,90,305	**3,39,482**	20,361	...	...	...	...	1,49,177	1,90,305	**3,19,121**
1888-89	11,668	6,364	**18,032**	1,58,353	2,22,579	**3,80,932**	22,150	...	...	...	...	1,58,353	2,22,579	**3,58,782**
1889-90	12,513	7,417	**19,930**	1,65,676	2,49,715	**4,15,391**	29,713	...	535	...	**535**	1,66,211	2,49,715	**3,86,213**
1890-91	13,783	8,502	**22,285**	1,71,297	2,41,918	**4,13,215**	36,700	...	5,024	84	**5,108**	1,76,321	2,42,002	**3,81,623**
1891-92	12,391	10,020	**22,411**	2,39,669	3,29,957	**5,69,626**	58,778	...	3.992	10	**4,002**	2.43,661	3,29,967	**5,14,850**
TOTAL ...	**60,720**	**38,912**	**99,632**	**8,84,172**	**12,34,474**	**21,18,646**	**1,67,702**	...	**9,551**	**94**	**9,645**	**8,93,723**	**12,34,568**	**19,60,589**
AVERAGE ...	**12,144**	**7,782**	**19,926**	**1,76,834**	**2,46,895**	**4,23,729**	**33,540**	...	**1,910**	**19**	**1,929**	**1,78,745**	**2,46,914**	**3,92,118**

* The figures in this column do not include allotments from district to taluk or from taluk to union funds, or payments from district to taluk funds on account of loans from taluk fund balances.

Statement showing the Incidence of House-tax for 1891–92.

Names of Unions in which tax is levied.	Rate of tax.	Number of houses finally assessed. First class. Number.	First class. Amount.	Second class. Number.	Second class. Amount.	Third class. Number.	Third class. Amount.	Fourth class. Number.	Fourth class. Amount.	Fifth class. Number.	Fifth class. Amount.	Sixth class. Number.	Sixth class. Amount.	Total. Number.	Total. Amount.	Average assessment per house taxed.	Amount actually collected.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
			RS.		RS.		RS.		RS.		RS.		RS.		RS.	RS. A. P.	RS.
Ambúr		14	70	68	204	200	400	530	530	564	282	420	105	1,796	1,591	0 14 2	1,547
Arcot		11	55	21	63	70	140	420	420	996	498	1,578	394	3,096	1,570	0 8 1	1,570
Arni		18	90	38	114	212	424	570	570	537	269	845	211	2,220	1,678	0 12 1	1,668
Chittoor	Maximum.	94	470	188	564	389	778	601	601	622	311	758	189	2,652	2,913	1 1 7	2,900
Kálahasti		16	80	20	60	106	212	410	410	569	284	1,414	354	2,535	1,400	0 8 10	1,396
Pólúr		4	20	7	21	110	220	265	265	405	202	699	175	1,490	903	0 9 8	903
Sholinghur		13	65	26	78	76	152	244	244	340	170	346	87	1,045	796	0 12 2	796
TOTAL ...		170	850	368	1,104	1,163	2,326	3,040	3,040	4,033	2,016	6,060	1,515	14,834	10,851	0 11 8	10,780

CHAPTER XVIII.

ECONOMIC CONDITION.

CH. XVIII. INTRODUCTORY. Improvement in recent years.

No exact account can be given of the life and surroundings of the people during the eighteenth century, but it is plain on general considerations that, for the vast majority of the population—for all the farmers and labourers and for most of the traders and artizans—the struggle for existence must have been a very hard one. For North Arcot was the very cock-pit of Southern India, the constant scene of battles and sieges, invasions and raids. The French and the English, contending Subahdárs of the Deccan, rival Nawabs of the Carnatic, Mahratta horsemen and invaders from Mysore, were constantly passing and repassing through the district, while even when these were absent the oppression and exactions of the local poligars, always heavy, but particularly so in those years of turbulence, left the peasant but little of his produce and frequently deprived him of life itself. Sometimes the whole crop was taken, and the cultivators were seldom allowed to retain more than from one to three parts out of ten instead of the usual four or five. Their share, in fact, was often only 'what they could conceal or make away with,' to quote the words of Mr. Stratton, the first Collector. The establishment of the British power and the reduction of the poligars produced considerable improvement, but owing to a variety of causes which have been described in the chapter on Revenue History, the condition of the ryot still left much to be desired, and even so late as 1853, Mr. Bourdillon gave a far from favourable picture of the Madras ryot and labourer, which must have been largely drawn from his experience of North Arcot.[1] That there has been a considerable improvement since those times will be readily admitted. The land assessment is now lighter and more equally distributed, tiled houses are more common, brass and copper utensils are in more general use, jewels are more frequently seen, the clothing of the poorest classes is decidedly better, public health has improved, such infirmities as insanity and leprosy are declining, and education, though still backward, has made a marked advance.

AGRICULTURAL CLASSES.

Upwards of 70 per cent. of the inhabitants of the district are shown by the census returns to be dependent for their livelihood upon pasture and agriculture and, as already explained, the real proportion is probably even higher than this, as many who appear in the returns under the head of general labour are chiefly agricultural

[1] Quoted at page xxxviii. of the Hon. S. Srinivasa Raghavaiyangar's *Memorandum on the Progress of the Madras Presidency.*

CH. XVIII. AGRICULTURAL CLASSES.

labourers. The position of the agriculturist, therefore, will afford a sure indication of the condition of the people generally. If he prospers, his labourers will be well looked after, the trader will have a good market for his wares, the weaver's loom will not be silent, the potter and the brass-smith will be busily employed, and even the beggar will be well fed. The greater part of this chapter will, therefore, be devoted to the agricultural classes.

Evidence of Improvement.

If we compare the agricultural and population statistics of 1871 with those of 1891, we find that the increase in the extent of ryotwári land in occupation is relatively less than the advance in population. Between 1871 and 1891 the population increased by 8·20 per cent., and it may be assumed that on an average the growth was practically the same in ryotwári and zemindári areas. The census of 1871 was taken in fasli 1281 and that of 1891 in fasli 1300, and it will be proper, therefore, to take the agricultural statistics of faslis 1280–82 for the earlier enumeration and those of faslis 1299–1301 for the later, as the adoption of an average will minimize errors due to seasonal variations. The statistics for the earlier period are based on the old revenue accounts in which the area was seriously understated. The error in the occupied area was found to be a deficiency of 54,779 acres in dry and 24,250 acres in wet lands, or a total of 79,000 acres. Adding this number to the average of faslis 1280–82 the increase of the occupied area in the nineteen years is found to be only 2·73 per cent. against an increase in population of 8·20 per cent. The position, however, is somewhat better than this for the wet land, which is four to eight times as productive as dry, has increased by 7 per cent. Still the fact remains that the area in occupation has not advanced to the same extent as the population. But though there has apparently been a decline in the average area of occupied land to each inhabitant since the very prosperous years of the early seventies, there can be little doubt that the average amount of produce has greatly increased. This is in part owing to the great extension of irrigation both public and private, but more especially the latter. Statistics for the earlier years are not available, but in 1880–81 the area irrigated in Government villages from all sources was 318,000 acres. Adding 13 per cent. to this for the error in the old accounts, the true area was approximately 359,000 acres; by 1888–89 it had risen to 526,750 acres and though it fell somewhat in succeeding years, it is still over half a million acres. It is clear, too, from other considerations that the area capable of being irrigated in a good season has greatly extended. The area under rice in 1870–71 was 198,000 acres, or 223,700 acres if the error in measurement be corrected; in 1888–89 it was as high as 416,000 acres. There has also been a great increase in the cultivation of other valuable crops, such as

ground-nut and sugar-cane, and an extension of mango, orange and plantain gardens.

CH. XVIII. AGRICULTURAL CLASSES.

Evidence of Improvement.

Taking all agricultural products together, and allowing for areas cropped more than once, the acreage has increased from 675,000 acres in 1871–72 to 992,000 acres in 1890–91, an advance of 47 per cent. Of this 13 per cent. is due to the more accurate survey, but even when this deduction is made we have an increase of 34 per cent. as against an increase in population of only 8·20 per cent. It would be unwise to claim absolute accuracy for these statistics, but they at least approximate sufficiently to the truth to justify the conclusion that there has been a great increase in production as compared with the growth of population.

Great rise of prices.

While the average production of food per head of the population has thus largely increased, its money value has also advanced very considerably. North Arcot, it should be remembered, is one of the districts which grows considerably more than it consumes. As already stated, there are no published statistics of the export and import trade of the district, but in 1875 the net export of rice from the principal railway stations of North Arcot to Madras, Bangalore and Beypore (Calicut) amounted to 846,000 Indian maunds, that of paddy to 12,600 maunds, and the export of jaggery to over 100,000 maunds. In addition to this there were the exports from the other railway stations and a considerable road trade, chiefly from the southern taluks to Pondicherry. The great advance in prices during recent years must, therefore, have been extremely beneficial to the North Arcot ryot, for there has been no corresponding rise in the prices of the articles on which he spends his surplus income and many of them are decidedly cheaper than they were twenty years ago.

Statistics of prices have been given in considerable detail in Chapter IV, but their general course is shown more clearly in the following table, in which the price of each grain during the five years 1870–74 is taken to be 100 and the prices of two subsequent periods are shown in terms of this index :—

Index Numbers of grain prices.

Grain.	1870 to 1874.	1880–81 to 1884–85.	1888–89 to 1892–93.
Rice (second sort).	100	111	149
Cholum	100	106	146
Ragi	100	105	137
Cumbu	100	109	151

To appreciate these figures properly, and to obtain some idea of the enhanced money income which they indicate, the acreage under cultivation and the average yield per acre must be taken into account. Experiments as to the produce of wet and dry cultivation

CH. XVIII. AGRICULTURAL CLASSES.

Great rise of prices.

have been made by both the Revenue and the Settlement departments the investigations of the latter extending over a period of eight years. These experiments were confined to the taluks of Chittoor, Chendragiri, Gudiyáttam and Wálájápet, which are fairly representative of the tracts below the gháts. The outturn of paddy in Chittoor and Chendragiri was found to be very high, being on an average 1,192 Madras measures per acre in the former and 1,346 in the latter. In Wálájápet, on the other hand, the average yield was found to be only 864 Madras measures. Taking the district as a whole, and having due regard to the classification by the Settlement department both of soils and sources of irrigation, 800 Madras measures per acre is a very fair average outturn of all wet lands. Now during the past six years, a period which includes one bad and several unfavourable seasons, the average area annually under paddy in Government villages was 376,000 acres, so that the average outturn was 300,800,000 Madras measures, or 451,200,000 Government seers of 80 tolas. The value of this, at the average price of the past five years, is, in round numbers, Rs. 200,00,000, or about Rs. 40,00,000 more than it would have fetched twenty years ago. At present prices the difference is even greater.

The dry land presents greater variety of classification than the wet, but the average assessment is Rs. 1–3–4 per acre and the yield of ragi, which approximates to this rate, is 175 Madras measures. Applying this to the acreage under crops other than rice, we get a total yield of 107,100,000 Madras measures of ragi, worth Rs. 64,50,000, at the average price of the past five years and Rs. 47,00,000 at the prices of twenty years ago. It is true that the ryot gains nothing by the rise in prices except on the produce he sells, but, in the case of rice at least, he sells a very large proportion of his crop, and rice is much more valuable than the dry grains on which he chiefly relies for his food. Even if he consumes all the dry produce he grows, his profit in recent years has risen very largely, provided he has some land on which he grows rice or some still more valuable crop such as sugar-cane. As a matter of fact, however, he does not consume all or nearly all the produce of his dry lands, for a large area is under non-food crops, such as oilseeds, indigo, &c., and a great deal of the horsegram and ragi is exported to Madras and elsewhere.

Status of the ryot.

Of all the agriculturists the most important from the point of view which is now being considered is the farmer or ryot. The zemindar, poligar and other large landlords are few in number, and though they exercise considerable influence on the position of their tenants, an influence which will be considered hereafter, yet their own condition hardly comes within the scope of this chapter. The following remarks, therefore, relate only to the holder on *ryotwári* tenure.

Status of the ryot.

In considering the *status* of the ryot, it is a mistake to press unduly a comparison with either the proprietor or the tenant of European countries, for the relation of the State to the land is totally different in the two cases. The Madras ryot in fact holds a position midway between that of the European proprietor and the tenant. His title to the land held by him is as complete as that of an English free-holder, and he can mortgage, sell or otherwise alienate it as he chooses. The State requires that he should pay the assessment on the fields he occupies, but failure to do so does not necessarily deprive him of his holding, for if coercive processes become necessary his movable property is usually proceeded against first, and in no case is more property attached and sold than will, on a reasonable estimate, satisfy the arrear due, together with the costs of distraint. He can throw up his land, or any portion of it, at any time on giving notice to that effect, and his liability for the assessment thereupon ceases, but he must pay the tax for the current agricultural year (July—June) if he surrenders it so late in the season as to prevent its cultivation by any one else. He may grow what crops he pleases and as often as he likes. He may not destroy the land, but he is not bound to cultivate it. The State has now reserved the right to a share of mineral produce, but, perhaps unfortunately, this innovation has not much practical bearing on the position of the ryot.

The land-tax.

The land assessment which the ryot pays, though somewhat heavy if viewed as a land-tax, is appreciably less than the economic rent, except perhaps in the case of the poorest lands, for all others have a sale value, small though it be in many instances. Nominally one-half of the net produce, the assessment is in reality only about one-sixth and frequently very much less. The average produce of an acre of wet land is 800 Madras measures of paddy worth, at the average price of the past five years, about Rs. 53–8–0. The mean wet assessment is Rs. 5–8–0 an acre or about one-tenth of the gross produce. Taking the expenses of cultivation at Rs. 10 an acre, which is a liberal allowance, and deducting one-fifth of the gross produce for vicissitudes of the season, in accordance with the methods of the Settlement department, the net produce is worth Rs. 32–13–0 and the assessment is one-sixth of this. For dry lands the average yield is about 175 Madras measures of ragi worth Rs. 10–8–10, and the mean assessment is Rs. 1–3–4. Making the same calculations as in the case of wet land and allowing Rs. 2 per acre as the cost of cultivation, the net yield comes to Rs. 6–7–1, which is between five and six times the assessment. The commutation prices upon which the settlement was based are the average prices of the twenty years 1845–46 to 1864–65 and, as has already been shown in Chapter IV, these are very much less than the

CH. XVIII. AGRICULTURAL CLASSES. — The land-tax.

average of the last five years. Thus the commutation price of paddy is 50·5 seers per rupee, and the average for the past five years is 22·4 seers. For cholum the figures are 41·7 and 20·7 seers and for rági 38·1 and 24·9 seers. The increase is 53 per cent. for ragi, 101 per cent. for cholum, and no less than 125 per cent. in the case of paddy.

This steady rise in prices must have caused a considerable enhancement of the value of land, but unfortunately the statistics bearing on the subject are not fully comparable, owing partly to a change in the registration law and partly to the two sets of figures having been prepared on different methods. At the beginning of the century, very little land had any sale value at all. In 1830 it was reported that the sale value of lands was highest in the case of the Tirupati ináms, where it was twenty-five times the annual income (? assessment), while the average price throughout the district was from five to ten times the income. In 1875 a number of documents were examined by the Registration department, and the average selling price of the different classes of land in Government taluks and zemindáris was found to be as under:—

Kind of land.	Average price per acre.	
	Government taluks.	Zemindáris.
	RS.	RS.
Wet lands	241	107
Garden lands	165	45
Dry lands	91	104

These figures are deduced from the registrations of ten years and were prepared for the Famine Commission. The price of dry land seems high, but later statistics also show very high prices for dry land, especially in the Kárvetnagar zemindári, where the high rate of Rs. 320 an acre is given in each of the last three years as the average price of the best dry land. Such cases are, no doubt, exceptional and probably relate to fields which have been permanently improved by the construction of reliable wells or other sources of irrigation. These later statistics, which are contained on the next and succeeding pages, give Rs. 1,650 an acre as the maximum price of the best wet land, and this too in the Chittoor taluk, which is not generally regarded as having the best soils or the most trustworthy sources of irrigation. It is not easy to strike an average of these figures, and a comparison with those of 1875 is, therefore, impossible; but they at least prove conclusively that land has a high selling price, and thus the assessment cannot be excessive.

Statement showing the average value per acre of wet and dry land in the years 1890–91 *to* 1893–94 *in the District of North Arcot.*

Taluks and zemindáris.	Sub-districts.	1890–91. Wet land. Most fertile.	1890–91. Wet land. Middling.	1890–91. Wet land. Worst.	1890–91. Dry land. Most fertile.	1890–91. Dry land. Middling.	1890–91. Dry land. Worst.	1891–92. Wet land. Most fertile.	1891–92. Wet land. Middling.	1891–92. Wet land. Worst.	1891–92. Dry land. Most fertile.	1891–92. Dry land. Middling.	1891–92. Dry land. Worst.
		RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Arcot	Arcot	417	114	49	11	30	21	155	213	95	17	77	57
	Tiruvattúr	420	300	170	25	15	9	400	300	170	25	15	9
Chendragiri	Tirupati	554	505	154	119	181	43	396	...	131	...	223	145
Chittoor	Chittoor	1,200	200	...	200	60	...	1,000	100	...	200	40	...
Gudiyáttam ...	Gudiyáttam	397	200	120	47	35	19	461	224	69	...	20	40
	Kátpádi	Office not opened.											
Palmanér	Palmanér	125	38	12	100	10	...	150	30	...	35	7	...
Pólúr	Pólúr	233	60	41	83	37	24	197	74	77	45	71	41
Vellore	Ambúr	275	205	150	130	45	12	300	190	90	125	60	48
	Pallikonda	...	...	...	...	...	...	...	...	...	...	...	...
	Vellore	240	180	80	60	15	16	380	200	133	65	40	32
Wálájá	Arkonam	171	166	85	32	32	105	167	295	53	22	16	80
	Sholinghur	Office not opened.						360	112	50	60	10	7
	Wálájá	600	300	100	...	30	20	600	300	120	...	30	25
Wandiwash	Wandiwash	301	68	60	31	4	6	250	40	57	70	11	5
Arni Jágír	Arni	400	300	150	100	80	60	400	300	150	100	80	60
Kálahasti Zemindári	Kálahasti Inám ...	96	70	31	67	24	27	...	45	18	25	36	45
	Kálahasti Zemin ...	...	...	...	...	...	...	...	...	...	...	...	...
	Mádarpák	100	50	20	70	30	5	80	35	15	60	25	3
Kangundi do. ...	Kangundi	...	...	...	...	...	...	...	...	...	...	...	...
Kárvetnagar do.	Puttúr	...	...	...	...	...	...	...	...	...	...	...	...
	Tiruttani	320	160	48	320	192	64	320	160	48	320	192	64
Punganúr do. ...	Punganúr	400	200	90	25	35	20	400	175	70	20	30	20

Statement showing the average value per acre of wet and dry land in the years 1890–91 to 1893–94 in the District of North Arcot—cont.

Taluks and zemindáris.	Sub-districts.	1892–93.						1893–94.					
		Wet land.			Dry land.			Wet land.			Dry land.		
		Most fertile.	Middling.	Worst.	Most fertile.	Middling.	Worst.	Most fertile.	Middling.	Worst.	Most fertile.	Middling.	Worst.
		RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Arcot	Arcot	270	122	90	17	43	23	600	250	100	120	70	30
	Tiruvattúr	350	320	190	25	15	9	793	217	24	76	31	16
Chendragiri	Tirupati	480	...	37	39	78	67	867	359	22	197	50	5
Chittoor	Chittoor	800	100	...	80	40	...	1,650	625	125	437	120	9
Gudiyáttam ...	Gudiyáttam	385	208	66	...	34	61	400	200	100	113	100	66
	Kátpádi	240	138	44	53	127	10	400	200	50	120	50	18
Palmanér	Palmanér	200	50	9	...	8	...	300	210	100	11	9	..
Pólúr	Pólúr	334	124	73	49	12	7	545	341	88	150	81	5
Vellore	Ambúr	340	280	70	75	55	25	310	320	80	75	75	40
	Pallikonda	...	..	...	...	...	...	886	256	9	372	133	3
	Vellore	400	225	160	70	35	40	440	324	65	125	92	31
Wálájá	Arkonam	197	122	54	20	34	107	270	142	74	140	60	15
	Sholinghur	380	120	52	70	12	8	600	400	70	300	100	20
	Wálájá	600	300	200	...	35	30	800	400	250	...	40	35
Wandiwash	Wandiwash	265	72	42	37	11	5	361	183	92	133	47	23
Arni Jágír	Arni	500	400	200	150	100	80	500	250	150	100	50	25
Kálahasti Zemindári	Kálahasti Inám ...	...	88	21	53	44	44	300	100	50	70	40	20
	Kálahasti Zemin ...	...	...	...	...	...	...	50	20	10	90	40	...
	Mádarpák	100	50	20	70	30	5	...	...	...	...	...	...
Kangundi do. ...	Kangundi	...	...	...	...	...	...	808	327	52	101	46	8
Kárvetnagar do.	Puttúr	...	...	...	...	...	...	460	95	26	290	65	22
	Tiruttani	320	192	48	320	240	64	320	192	48	320	240	64
Punganúr do. ...	Punganúr	400	200	100	25	40	20	331	155	80	225	77	19

The ryot's farm.

But though the legal *status* of the ryot leaves little to be desired, though his tax or rent is a light one and though his general material condition has undoubtedly improved, still it must be admitted that, in a large majority of cases, he leads a hard and unlovely life, possesses few luxuries, enjoys few pleasures and has but little capital to fall back upon to meet an adverse season or any unforeseen and unusual loss. One chief reason of this is that he farms on a very small scale. The difficulty of obtaining reliable information as to the average size of a ryot's holding has already been noticed, but it was shown that it must be very small. The following statement prepared from the rent roll statistics of fasli 1301 shows further that the majority of the holdings are less than half the average size :—

Statement showing the Rent roll of North Arcot for fasli 1301.

—	Single Pattás.		
	Number.	Assessment.	Average assessment per pattá.
1	2	3	4
		RS.	RS. A. P.
Pattás under Rs. 10	95,648	3,19,041	3 5 4
Pattás between ,, 10 and 30 ...	24,633	3,78,628	15 5 11
Do. do. ,, 30 and 50 ...	4,889	1,75,623	35 14 9
Do. do. ,, 50 and 100 ...	2,707	1,63,666	60 7 4
Do. do. ,, 100 and 250 ...	586	75,505	128 13 7
Do. do. ,, 250 and 500 ...	35	11,226	320 11 11
Do. do ,, 500 and 1,000.	9	5,491	610 1 9
TOTAL NUMBER OF PATTÁS ...	**128,507**	**11,29,180**	**8 12 7**

—	Joint Pattás.			
	Number.	Assessment.	Average assessment per pattá.	Number of registered holders of joint pattás.
	5	6	7	8
		RS.	RS. A. P.	
Pattás under Rs. 10	47,890	2,02,209	4 3 7	143,227
Pattás between ,, 10 and 30 ...	17,934	2,96,328	16 8 4	57,516
Do. do. ,, 30 and 50 ...	4,941	1,78,729	36 2 9	17,861
Do. do. ,, 50 and 100 ...	2,443	1,63,461	66 14 7	9,757
Do. do. ,, 100 and 250 ...	643	91,937	142 15 8	3,011
Do. do. ,, 250 and 500 ...	39	12,743	326 11 11	168
Do. do. ,, 500 and 1000.	5	2,956	591 3 2	110
TOTAL NUMBER OF PATTÁS ...	**73,895**	**9,48,363**	**12 13 4**	**231,650**

CH. XVIII. AGRICULTURAL CLASSES.

The ryot's farm.

The average assessment in fasli 1301 on wet and dry lands in occupation was Rs. 2–9–0 an acre, so that the sum of Rs. 3–5–4, the average assessment payable on 74 per cent. of the single pattás, represents an area of only 1·30 acres. The yield of a farm of this extent of dry land, bearing an assessment of Rs. 2–9–0 an acre would, according to settlement calculations, be about 1,125 lb., or say 1,000 lb. after paying the assessment. This would give $2\frac{3}{4}$ lb. a day, which is barely enough to support one adult male and to supply funds for the cost of seed, cattle and implements. This average extent, however, consists of wet and dry land together and the produce would therefore be greater than the above estimate. On the other hand all land in occupation is not cultivated every year. The mean extent cultivated per head is about three-quarters of an acre, and making due allowance for the proportion of irrigated and unirrigated land the net yield of this extent, after payment of assessment and the charges for cattle, implement and seeds, is about 900 lb. to 1,000 lb. per annum, and the greater part of this grain is rice. These averages, however, are not altogether safe as the basis of general conclusions, though assessment certainly affords a better test than acreage of the outturn of a holding. What is wanted is a detailed examination of a number of typical villages and an inquiry into the circumstances of ryots of all classes. From such an investigation fairly trustworthy conclusions might be drawn as to the proportion of ryots who are unable to live by the produce of their farms without resorting to other employment to supplement their incomes. That this number is relatively large admits of no doubt, but it is at present impossible to give any definite measure of it in figures. An income of Rs. 72, with the addition of the produce of a cow, a buffalo or a few goats and the coriander seeds, chillies and vegetables which he grows in his backyard or on a little plot of his holding, would usually be enough for the maintenance of a ryot and his family according to the standard of comfort to which they are accustomed. Now the value of the gross produce of land is about ten times the assessment and if the ryot and his family themselves supply all the ordinary labour the cost of cultivation to them will be about the same as the assessment. To the working farmer, therefore, his land brings an income which is approximately eight times the assessment, and thus it follows that any ryot who pays less than Rs. 9 per annum on his pattá must add to his income by working for others, and probably his wife and children do the same. But in applying this scale to the statistics of pattás given above it is necessary to bear in mind that many ryots hold inám lands in addition to their pattá fields and that a number of the holders of single pattás are also interested in one or more joint pattás. The average area per pattá, single and joint, is just under four acres, but it has been shown that the average area to each

Pauper ryots.

farmer is probably between five and six acres. Still after making all due allowance for the defects in the statistics it is evident that there is an immense number of ryots who cannot live by their lands alone and that only a small proportion of the farmers are rich men, even according to local standards of wealth.

The cry of 'pauper ryots' is one which has been often heard of recent years and it is generally raised by those who either directly assert or indirectly suggest that the pauperization has been brought about by an excessive and burdensome land-tax. Enough has been said above to show how erroneous is this statement. As regards the 'pauper ryot,' much depends on the point of view. If he is regarded as a farmer whose property has gradually diminished until his farm is no longer sufficient to support him, then the position is a deplorable one and shows a lamentable retrogression in the material condition of the most important class of the population. But if the pauper ryot is usually a labourer who, by his industry and thrift, has obtained a small extent of land the aspect of the case is entirely altered. Probably both causes have been at work but there can be little doubt that the latter has been in operation to a much greater extent than the former. In connection with the census of 1891 a special tabulation was undertaken for the purpose of ascertaining how far the labouring classes, *i.e.*, the Pallas, Pariahs, &c., had become pattádárs or tenants. The inquiry was restricted to the districts of Chingleput, South Arcot and Tanjore, but the two former adjoin North Arcot, which has many points of resemblance to both. In Chingleput 35·6 per cent. and in South Arcot 40·5 per cent. of these castes are farmers, *i.e.*, either pattádárs or sub-tenants, and when it is remembered that it is only within comparatively recent times that these classes ceased to be serfs, it must be obvious that there has been a great accession from the labouring classes to the ranks of the small farmers during the last fifty or sixty years. Of these 'land occupants' 35·21 per cent. in Chingleput and 83·21 per cent. in South Arcot had occupancy rights. The great labouring castes in North Arcot are the Paraiyans, Málas and Pallis, and all of these were formerly prædial slaves, the Pallis being ordinarily the serfs of the *Bráhmans*. The Pallis were not included in the special tabulation referred to above, but inasmuch as they are decidedly superior in enterprise and intelligence to the other castes dealt with they must have been still more successful in acquiring land. This caste numbers in North Arcot 308,371 and it is well within the mark to say that quite one-half of these are farmers, and the real proportion is probably much higher. According to the census returns the number of persons who depend for their livelihood upon agricultural labour is 224,000, and even if the general labourers be included the total number is only 327,000, while the strength of the castes who are field

CH. XVIII. AGRICULTURAL CLASSES.

labourers by hereditary occupation is 658,000. Over 331,000 of these castes have therefore risen in the social scale, and it may be assumed with some confidence that the majority of them have become farmers.

Pauper ryots.

Whether it is desirable to have a large number of petty cultivators, without capital and without intelligence, is another matter. In England there is a strong movement in favour of labourers' allotments, and the possession of three acres and a cow was not long ago held up as the Elysian goal, the attainment of which should be alike assisted by legislative enactments and encouraged by those who wished well to their country. There is, however, this important difference between the allotment labourer of England and the small ryot of Madras, the former is a labourer first and depends chiefly upon his wages for his livelihood, while the latter is a farmer first and works for hire only occasionally. Thus a failure of crops affects the latter much more disastrously than the former, for however bad the season, a large proportion of the English labourers get their wages just the same, while the 'pauper ryot' not only loses the produce of his lands but also finds it difficult to obtain the wages of ordinary years. It seems improbable, however, that farmer capitalists will arise in India for many years to come, for if a man has capital he usually sub-lets his land instead of farming it himself and as long as agriculture remains the predominant industry of the country this is likely to continue to be the practice.

Tenants.

This brings us to the subject of tenants, that is, those who hold land on other than the ryotwári tenure. According to the census returns the number of tenants and their families is 281,000, while the number of 'land occupants' (*i.e.*, those having some occupancy right in their holdings) is 953,000. It is obvious from these figures that a large proportion of the zemindári tenants must have returned themselves as ryots, pattádárs, or by some other term implying the possession of occupancy right, for very nearly one-half of the area of North Arcot consists of lands held on zemindári tenure, and seeing that many of the large Government ryots and inámdárs sub-let their lands, the number of tenants must be about the same as the number of pattá ryots. The term ryot, however, is one which is very generally applied to zemindári tenants, who did undoubtedly in former times possess occupancy rights, and in parts they do so still. The question cannot be said to be finally settled in a manner that would be held generally applicable to every case, but the tendency of late years has been to convert the zemindári ryot into a lease-holder or a yearly tenant, and this usurpation on the part of the landholders has been largely successful everywhere, except, perhaps, in Kárvetnagar and Arni. It follows that, while his status is thus inferior to that of the Government ryot, the zemindári tenant also pays a higher assessment, for it approaches more

Tenants.

nearly to a competition rent than does the land-tax of the ryotwári holder. The rent, too, is frequently paid, either wholly or partially, in kind, and the farmer thus loses some of the advantage given by the rise in prices. On the other hand the fact that lands in zemindáris have a sale value not much less than that of lands in similarly situated Government taluks shows both that the rents cannot be very much higher and that in practice, whatever the legal position may be, the tenant does enjoy an occupancy right and can transfer it.[2]

Sub-tenants.

It will avoid confusion and be in accordance with district usage if the term sub-tenant is applied to those who rent lands from ryotwári holders, minor inámdárs, or zemindári tenants. The small size of the average ryotwári holding shows that these sub-tenants cannot be very numerous, for it is only the large pattádárs and inámdárs who can afford to sub-let their lands. To these, however, should be added those land owners who depend mainly for their livelihood upon trade or some professional calling, and therefore let their lands, however small their extent.

The usual terms upon which lands are let to sub-tenants are that the produce should be shared equally between landlord and tenant, the former paying the Government assessment and the latter the expenses of cultivation. Sometimes the landlord finds the bullocks and the seed, and for the poorer classes of land his share is less than one-half. Money rents are rarely found and it is seldom that dry lands are sub-let. If we take Rs. 9 per mensem as the minimum income of a family content to live on the rent of lands, it follows that only pattádárs paying Rs. 27 per annum and upwards can afford to rent their lands.[3]

Labourers.

It is not the invariable rule, however, for large ryots to sub-let their lands. Many of them cultivate their farms by means of hired labour. These labourers are of two kinds, viz., those employed throughout the year and those whose services are required only at the harvest and other specially busy seasons. The former who are called *padiyils* in Tamil and *sédigándlu* in Telugu, are either given their meals, usually three a day, or they are paid in grain, the rate being a kalam of paddy, producing about 60 lb. of rice, a month; they also receive from Rs. 6 to Rs. 12 a year in cash and one cloth, worth about one rupee. In addition to these they get certain perquisites and presents on special occasions, such as a

[2] This statement is based upon the statistics of the Registration department, which are given on pages 285 and 286. It is not known to what extent the zemindári lands therein referred to, except those in Kálahasti, are ordinary tenants' holdings or in what number of cases they are lands held on some favourable tenure.

[3] The produce of lands paying Rs. 27 is worth about Rs. 270, half of which goes to the landlord. Deducting the assessment the landlord's income is Rs. 108 per annum.

CH. XVIII. AGRICULTURAL CLASSES. — Labourers.

birth or a marriage and the Dipávali and Saukránti or Pongal festivals. They are, too, sometimes allowed a small patch of land rent free. They are very generally in debt to their masters, but they are, on the whole, in comfortable circumstances, as they are retained and fed even in unfavourable seasons. Part of the family income of these farm-servants, however, is earned by the wife and children, who work for daily wages, and this of course falls off in bad times. According to the census of 1891 the number of farm-servants and those dependant upon them is 53,852, but it is probable that some omitted to describe themselves by the particular vernacular term which distinguishes permanent servants from those employed casually and they would thus be included under the head of field labourers. The understatement cannot, on the other hand, be very great, for the number of large land-holders who cultivate their farms by their own servants is comparatively small in North Arcot.

The second class of agricultural labourers numbers 170,000 and there are also 103,000 general labourers. This total is not a large one, but it must be remembered that a high proportion of the ryots probably at least 50 per cent., are labourers as well as farmers Apart from agriculture there is a considerable demand for labour on the construction and repair of irrigation works, roads and buildings, on the numerous lines of railway that traverse the district, for the handling and porterage of goods in the towns and larger villages, and in connection with the numerous petty industries that are found in both rural and urban tracts. Numbers also eke out their ordinary occupation by the collection and sale of fire-wood, cattle-dung (for fuel) and grass. In many of these employments, the demand is fairly permanent, and in the case of the large public works it comes just at the time when agricultural labour is not required.

The wages of unskilled labour, both agricultural and general, vary from three to four annas in towns, and from two and a half to three annas in villages for adult males, and from one-half to two-thirds of these rates for women and children. They are as a rule higher than those of the farm-servants, but the latter's employment is more certain. A family consisting of a man, his wife and three children will earn from Rs. 6 to Rs. 7 a month. In ordinary years this class of the population is as well off as the lowest stratum in most countries, due allowance being made for different standards of comfort, and the statement that a number of them go through life without enough to eat is an exaggeration. In unfavourable years, indeed, these are the first to feel the pressure, but this is the same in all countries and is very different from a state of chronic insufficiency of food. It is chiefly the poorer classes who drink alcoholic liquor and the abkári revenue of the district is over nine lakhs of rupees per annum. The 'drink bill', *i.e.*, the actual

CH. XVIII. AGRICULTURAL CLASSES.

expenditure by the consumers, is thus probably twelve lakhs, and as there is comparatively little confirmed drunkenness, it is impossible to believe that any but an infinitesimal proportion of the labouring classes suffer from chronic insufficiency of food.

Indebtedness of the ryots.

Seeing that the holding of the average farmer is so small and that he is almost invariably without any capital, it is not a matter for surprise to learn that the majority of them are obliged to borrow to enable them to meet any exceptional expenditure or to tide over a bad year.[4] One native officer of experience estimates that not less than 60 per cent. of the ryots are in a chronic state of indebtedness; that 35 per cent. are able to pay their way and that the remaining 5 per cent. are in a position of affluence and able to lend money or grain to their poorer neighbours. The chief cause of this indebtedness is the performance of marriage ceremonies, and to a less extent of funeral ceremonies also, on a scale which seems to western ideas altogether out of proportion to the means of the individuals concerned. The custom of ages is, however, so strong that a man who, in his ordinary daily expenditure, is thrifty and even penurious, will spend a year's income on a single marriage, and he would incur the severe disapprobation of his neighbours if he failed to do so. Litigation again is, among many classes, a fruitful source of debt, for parties to a dispute will spend far more than the subject-matter is worth on suit, appeal, second appeal, review and revision rather than submit to a defeat. But apart from these special occasions for the necessity of loans, a considerable number of the poorer ryot-labourers are forced by their circumstances to borrow grain for food, and frequently their seed-grain also, every year, the produce of their tiny holdings having been exhausted before the harvest comes round again; and in unfavourable years the ranks of these borrowers of the necessaries of life are largely augmented.

According to the census returns there are only about 380 professional money-lenders, but the income-tax statistics, which embrace all persons who make Rs. 500 per annum by money-lending, whether professional money-lenders or not, show 1,792, or one to every 4¼ square miles, which seems a high proportion. Many of these, however, are probably large ryots and not dependent for their livelihood solely upon money-lending. The usual rate of interest charged is 12 per cent. per annum. The following table, prepared from statistics compiled for typical villages in each registration sub-district, gives very full and instructive particulars regarding the degree of prevalence of different rates:—

[4] Much of the material for this section on the indebtedness of the agricultural classes was obtained from notes by three Deputy Collectors and the District Registrar, prepared for Mr. F. A. Nicholson's inquiries regarding the feasibility of starting Agricultural Banks.

Classified statement of Mortgages and simple bonds according to the rates of interest charged on loans.

1889–90.

Rate of interest.	Number of mortgages of Rs. 100 and upwards. Rs. 100 to 500.	Rs. 501 to 1,000.	Over Rs. 1,000.	Total.	Number of mortgages of less than Rs. 100. Rs. 1 to 50.	Rs. 51 to 99.	Total.	Simple bonds.
Below 6 per cent. ...	3	2	2	7	...	...	...	6
6 to 9 per cent. ...	79	27	11	117	9	4	13	48
9 to 12 per cent. ...	100	22	12	134	6	11	17	28
12 per cent. ...	849	42	10	901	431	325	756	330
Over 12 and under 18 ...	101	1	1	103	84	44	128	50
18 per cent. ...	63	2	...	65	86	55	141	59
Over 18 up to and including 24 per cent. ...	14	...	...	14	47	8	55	20
Over 24 per cent. ...	5	...	...	5	6	2	8	7
Grain Interest	279	3	1	283	263	107	370	68
No Interest	20	...	4	24	18	15	33	142
TOTAL ...	1,214	96	36	1,346	669	449	1,118	548

1890–91.

Rate of interest.	Number of mortgages of Rs. 100 and upwards. Rs. 100 to 500.	Rs. 501 to 1,000.	Over Rs. 1,000.	Total.	Number of mortgages of less than Rs. 100. Rs. 1 to 50.	Rs. 51 to 99.	Total.	Simple bonds.
Below 6 per cent. ...	6	1	2	9	3	...	3	8
6 to 9 per cent. ...	84	8	4	96	13	13	26	30
9 to 12 per cent. ...	98	27	12	137	7	14	21	32
12 per cent. ...	863	40	7	910	416	344	760	274
Over 12 and under 18 ...	108	2	...	110	66	49	115	38
18 per cent. ...	67	...	...	67	99	50	149	40
Over 18 up to and including 24 per cent. ...	13	...	1	14	54	11	65	23
Over 24 per cent. ...	2	...	...	2	5	1	6	9
Grain Interest	286	5	...	291	290	115	405	84
No Interest	36	1	...	37	22	15	37	129
TOTAL ...	1,241	78	26	1,345	663	482	1,145	454

1891–92.

Rate of interest.	Number of mortgages of Rs. 100 and upwards. Rs. 100 to 500.	Rs. 501 to 1,000.	Over Rs. 1,000.	Total.	Number of mortgages of less than Rs. 100. Rs. 1 to 50.	Rs. 51 to 99.	Total.	Simple bonds.
Below 6 per cent. ...	1	...	1	2	2	1	3	6
6 to 9 per cent. ...	57	13	9	79	10	5	15	33
9 to 12 per cent. ...	122	34	12	168	8	21	29	34
12 per cent. ...	1,018	43	4	1,065	485	428	913	347
Over 12 and under 18 ...	167	5	...	172	96	66	162	49
18 per cent. ...	57	1	...	58	111	53	164	53
Over 18 up to and including 24 per cent. ...	15	1	...	16	31	11	42	15
Over 24 per cent. ...	...	...	...	...	4	2	6	2
Grain Interest	276	2	...	278	291	102	393	109
No Interest	19	1	...	20	16	11	27	140
TOTAL ...	1,437	97	26	1,560	747	587	1,334	539

CH. XVIII. AGRICULTURAL CLASSES.

Indebtedness of the ryots.

Taking all the transactions together, 12 per cent. per annum was the rate charged in two-thirds of the 9,389 cases in which a money interest was stipulated for. As a rule a lower rate of interest than this is found only in connection with loans for comparatively large sums, while the petty borrower, as in most parts of the world, has to pay more highly for the accommodation he receives. This fact is well brought out in the following abstract of the totals of the statement given above; 'higher mortgages' are those for Rs. 100 and over, 'lower mortgages' those for less than Rs. 100 :—

Rate of interest.	Higher mortgages.		Lower mortgages.		Simple bonds.		All transactions.	
	NO.	PER CENT.	NO.	PER CENT.	NO.	PER CENT.	NO.	PER CENT.
Under 12 per cent	749	17·62	127	3·53	225	14·60	1,101	11·73
12 per cent. ...	2,876	67·65	2,429	67·53	951	61·71	6,256	66·63
Over 12 per cent.	626	14·73	1,041	28·94	365	23·69	2,032	21·64

Loans are granted upon hypothecation of land, crops, houses, jewels, carts, cattle and other property, which is not infrequently handed over to the creditor. Advances of grain, necessaries and even small sums of money are made by means of entries in an account current which is closed and settled on fixed dates, interest being charged on the balance of debt, if any. This balance is either simply carried forward or a bond or mortgage is executed for the amount. The poorer ryots do not usually take loans of money, except for the performance of a ceremony; but the practice of taking advances of grain and necessaries is very common. Such advances are frequently made by the well-to-do ryots, but money loans of any considerable amount are almost invariably made by a merchant or shopkeeper. Loans of grain are made repayable at the harvest together with from one-eighth to three-eighths of the quantity advanced, by way of interest, and that too for a period of only six months. In the case of advances of seed-grain double the quantity is paid at the time of harvest; or sometimes the lender stipulates to receive all the straw. When a grain interest is charged for a money loan the rate varies from six to twelve kalams of paddy for each hundred rupees.

It is not uncommon for loans of money to be made on an agreement to repay it in grain, indigo, jaggery, &c., and in such cases no interest is charged. This kind of loan is, however, extremely profitable to the lender, as the quantity of produce payable is arrived at by taking the lowest price during the year. It is said that such transactions yield from 2 to 5 per cent. *per mensem* on

CH. XVIII. AGRICULTURAL CLASSES. — Indebtedness of the ryots.

the amount advanced. Whenever default is made in the payment of produce the deficiency is converted into money at the highest price touched during the year and interest at 12 per cent. is charged on the amount thus arrived at, so that the wretched debtor suffers heavily. These advances for produce, though nominally without interest, are the very worst kind of loan and do far more to cripple the resources of the ryot than ordinary money debts, even at a high rate of interest.

Although in a number of cases the debtor does become hopelessly involved, owing in part to the sharp practices of the creditor and in part to his own ignorance and thriftlessness, yet the ordinary picture of the village sowcar as a sort of spider gloating in his web over the innocent flies he has devoured or holds enmeshed is absurdly overdrawn. The very strongest possible evidence against it is afforded by the enormous prevalence of small holdings and the infrequency of large ones. It is indeed abundantly clear that there is no accumulation of the land into the hands of the few as there would be if the Shylock view of the sowcar were the true one. As already stated, the lender is usually a wealthy ryot, well acquainted with and well-disposed towards his creditors, whom he has no desire to ruin or sell up. The hold which his position gives him over them is turned to account no doubt, and he readily obtains their services for little or no remuneration when an extra hand is required in the field or on the threshing floor, and they will naturally support his claims in the arena of village politics and perhaps furnish evidence for him when he goes to the law courts; but these relations, though in many respects undesirable, are very different from those that are too frequently depicted. And there is another side to the picture; the pauper ryot, allotment-labourer, or whatever name you call him by, would be in wretched plight indeed if he were deprived of his banker, for without his friendly assistance he would frequently be unable to tide over a period of misfortune caused by a failure of the rains, a blight on his crop, the loss of his plough bullocks, or the like. It would be well if those who denounce the sowcar so freely would remember this aspect of the question.

NON-AGRICULTURAL CLASSES. — Weavers.

Of the non-agricultural classes the most important numerically, and it is with the number of mouths we are chiefly concerned here, are the weavers. It has been shown in Chapter VIII that the weavers have not been driven from their hereditary occupation by the competition of Manchester, as is so often alleged, and it is doubtful whether their material condition has been seriously affected by that competition. It is true that the majority of them are in extremely poor circumstances; their earnings are scanty, their labour is often mortgaged in advance, their capital consists generally

CH. XVIII.
NON-AGRICULTURAL CLASSES.

Weavers.

only of their simple loom, and they are among the first to feel the effects of a scarcity, as the demand for their wares ceases and they seldom have any stock of food or money in hand to support them over the years of leanness. But Manchester can hardly be the sole cause of this, for we find that their condition was much the same towards the end of last century before a yard of piece goods or a bale of twist had arrived from Liverpool. On the other hand it must be admitted that the English competition has, to some extent, prevented the weavers from sharing in the general prosperity of the period of rising prices, and, as they have little or no land, this advance in the price of food stuffs has been to their disadvantage.

Other artisans.

The bulk of the other manufacturing classes are much better off than the weavers. The carpenter and the smith frequently hold inám lands, from which they draw much of their food supply, and they and the masons and brass and copper workers can command good wages. Goldsmiths are also a fairly thriving class who frequently combine a little pawn-broking business with their more particular trade. These artizans, however, do of course suffer in a time of scarcity, for the demand for their services declines and they have to fall back, wholly or in part, on their savings. The followers of such minor industries as mat and basket making, the manufacture of glass bangles, leather-work, pot-making and the like are in a less satisfactory condition, and, in their general circumstances and ability to meet a period of scarcity and high prices, they are little better off than the labouring classes. Some of them possess, however, one advantage over the ordinary labourers in that they are frequently of roving habits and can quickly migrate to other localities where there is a demand for their wares and where food is plentiful and cheap.

Other sections of the population.

Of the other sections of the non-agricultural population, the professional classes, the merchants and shopkeepers and the employés of the State may be dismissed from consideration, as they are secure from the worst effects of a famine, though some of them undoubtedly feel the stringency of high prices, and, if these are of long continuance, they will perhaps have to sell or pawn their jewels. It is the classes who have no such potential reserve that are a source of anxiety to the State, and chief among these are the coolies, such classes as the dhobies (washermen) and barbers, and the beggars. The last-named, like the mat and basket makers, are more or less of wandering habits, but their travels are usually confined to a particular circle of villages, and, if the scarcity is at all widespread, they are bound to suffer, and to suffer severely. It is some time, however, before their usual alms are denied to them by the charitable. "Charity," said Mr. Whiteside, Collector of North

CH. XVIII. NON-AGRICULTURAL CLASSES.

Other sections of the population.

Arcot, for many years, in his replies to the Famine Commission, "is regarded by the native community as the greatest of virtues, "and its practice is maintained to a scanty extent even to a very "advanced stage of a period of scarcity. Not until it is thoroughly "borne in upon men's minds that the famine is really serious, and the "importance of self-preservation is forced upon them by stress of cir-"cumstances, do the springs of private charity completely dry up. "When lately [5] the season began to mend, and fresh grain began to "come into the markets, I noticed with surprise and pleasure as soon "as prices fell how the practice of charity began to revive, and I saw "beggars receiving small handfuls of grain here and there."

SUMMARY.

Ability to meet a famine.

From the foregoing survey of the condition of the population it would be concluded that a moderately severe failure of crops would leave a considerable body of people without employment and without food. Experience, however, shows that when the scarcity, though severe, is not spread over a large area, the majority of the people do not require State assistance. The famine of 1891–92 was by no means entirely local, for relief operations had to be undertaken in Kurnool, Cuddapah, Bellary, Anantapur, Nellore, Chingleput, North Arcot, Salem and Coimbatore, and the price of food-grains rose enormously. Yet in North Arcot the numbers who sought employment on famine works or relief at famine kitchens was never very high. The whole district suffered, but it was found necessary to open relief works and kitchens only in the Wandiwash and Pólúr taluks and in the zemindáris of Kálahasti and Punganúr, and the maximum numbers assisted by the State, including both those employed on works and those fed gratuitously at kitchens, was never higher, at any one time, than 14,622, or 2·62 per cent. of the inhabitants of the area dealt with. The maxima for each territorial division were, Kálahasti 7,022 or 4·75 per cent., Wandiwash 7,302 or 4·11 per cent., Punganúr 1,843 or 2·00 per cent., and Pólúr 2,150 or 1·54 per cent. It is possible that a number of the people affected by the failure of the harvests may have migrated, but as this fact is not noticed in the reports of the district officers, the migration was presumably not on any great scale. The people must then have had some reserve to draw upon. It is indeed known that the practice of storing grain is almost universal, but it is extremely difficult to form any trustworthy estimate of the extent of these stores. On this subject Mr. Whiteside's reply to the Famine Commission may be quoted with advantage:

"All natives, and especially the agricultural class, are addicted "to the hoarding of grain year by year. A prodigious share of

[5] This was written towards the close of the great famine.

Ability to meet a famine.

"the crops, as they come off the ground, are stored away in under-"ground receptacles, the existence of which is jealously concealed "and strenuously denied if inquired after. These stores of grain "are kept intact, often for years at a time, and are gradually fallen "back on when scarcity prevails, or when bazaar prices rise inconve-"niently. It is impossible to estimate even with approximate "accuracy the total amount of these grain-stores, but of their exist-"ence in large numbers we have clear and unmistakable evidence "afforded in the course of the famine, which has now prevailed in "this district for upwards of two years. According to the last "census the population of North Arcot was 2,015,000 persons, and "during the famine it was calculated that 1,500 tons of grain per "diem would be required to feed those people. But when the "famine was at its highest pitch of severity, the largest quantity of "grain imported by rail in any one week never exceeded 1,000 tons. "It was thus clear that the vast bulk of the population was being "regularly supported by grain actually present in the district. The "grain dealers' supplies in the large towns consisted chiefly of grain "imported by rail, but the great mass of the agrarian population "throughout the past two years have been eating their own grain. "This is further shown by the fact that when the late raggy harvest "was known to be a fine one, and heavy crops were being reaped, "large quantities of old raggy were suddenly thrown into the market "in various places by people who must have kept them in store "throughout the last two years in spite of the enormous prices that "could have been realised had they chosen to sell earlier. The "district is so well supplied by railways, and there is such an excel-"lent system of road communication from the various railway "stations, that no difficulty was experienced throughout the famine "in getting stocks of imported grain from the railway stations to the "chief market towns. There was, therefore, never a famine of food "in the true sense of the word. The secret grain stocks coupled "with the weekly importations by rail amply supply for the needs of "the people. But it was impossible to calculate even with approxi-"mate accuracy the amount of grain stored away in the villages, for "such accumulation had been made gradually and secretly for years, "and though the divisional officers were certain that they existed, "the owners would not, for a moment, admit the fact, partly from a "fear lest they should be marked down for a grain dacoity at an "early date, and partly lest the Government officials should refuse "them State aid as the famine went on."

Another common method of laying something by for a rainy day—but in India it is for a rainless day—is to invest money in jewels. This also is universal and the value of the ornaments of the women affords a tolerably safe guide to an estimate of the prosperity of the people. Money, too, is often hoarded even by the

CH. XVIII. SUMMARY.

Ability to meet a famine.

very poorest classes, and Mr. Whiteside mentions instances of rupees being found concealed about the persons of paupers who had died either of starvation or of ailments induced by an insufficiency of food. This evident ability of a large number of the population to support themselves without assistance during a period of great scarcity and high prices shows that in ordinary seasons earnings are generally more than sufficient for requirements. The standard of living is undoubtedly a low one, and it is well that this should be borne in mind, but it is at least higher than it was and there is not the slightest evidence to support the opinion that a large proportion of the people never get enough to eat.

The future outlook.

The future outlook, however, is not altogether satisfactory. We have a population increasing at the rate of not less than one per cent. per annum in normal times, and the question arises whether production can keep pace with the growing demands upon it. Agriculture is the only productive industry of any importance, and it is true that the extent of land still available for cultivation is nominally about 360,000 acres in the Government villages and possibly some 300,000 acres in zemindári tracts. But much of this is not at present cultivable and could be made so only at considerable cost. Thus in Chittoor out of 73,255 acres of unoccupied arable land, 70,255 acres are described as unfit for cultivation; and it is the same, to a greater or less extent, in most of the taluks, as will appear from the marginal table.[6] According to these statistics the area available for extension of cultivation in Government villages is only about 150,000 acres, which, at three-quarters of an acre per head, would provide for 200,000 people. The population of these villages is 1,356,000, and it will have increased by 200,000 in 13 8 years. By the end of that period, then, or possibly after some rather greater lapse of time, population will have increased up to the limits of production, if the present conditions remain unaltered.

Taluk.	Unoccupied arable area.	Unfit for cultivation.	Remainder cultivable.
	ACRES.	ACRES.	ACRES.
Arcot ..	64,029	24,155	39,874
Chendragiri ...	13,578	12,578	1,000
Chittoor ...	73,255	70,255	3,000
Gudiyáttam ...	41,379	17,145	24,234
Palmanér ...	26,717	26,217	500
Pólúr ...	25,248	10,053	15,195
Vellore ...	19,201	13,601	5,600
Wálájápet ...	48,861	25,806	23,055
Wandiwash ...	45,394	9,183	36,211
TOTAL ...	**357,662**	**208,993**	**148,669**

The first of those conditions is the rate of increase of the population, which may be affected in various ways. There may,

[6] This table is taken from the Proceedings of the Board of Revenue, dated 5th May 1893, No. 167. Some of the figures bear signs of being mere guesses.

The future outlook.

for instance, be a general raising of the age at which marriage takes place, but having regard to the customs of the people and to the fact that the tendency towards the marriage of girls in childhood is increasing rather than the reverse, there is not much likelihood of this, or any prudential check, becoming effective for many years. The custom of infant marriage is, however, least common among the poorer castes, and in the case of this section of the population, an adverse season does exercise a transitory and slight check on matrimony. But this is rather a positive than a prudential check on population.

Of the positive checks which operated so heavily in past centuries, war is happily now absent. Epidemic disease is still of comparatively frequent occurrence, the most fatal being cholera; but neither this nor small-pox are now so formidable as they were, and their effect is allowed for in the estimated rate of increase of one per cent. per annum. There remains then only famine, which, varying in degree from severe scarcity to widespread and prolonged famine, seems to be periodic. Famine acts as a check on the growth of population in two ways: it kills off large numbers, who perish either from starvation or from disease, their powers of resistance and recuperation being greatly diminished and such diseases as cholera being, as a rule, more virulent at these times; and it greatly lowers the brith-rate. Thus the distress in 1891 resulted in a great falling off in births during the following year as has already been shown in Chapter V.

But though the effect of famine, even when local and partial, like that of 1891–92, is to appreciably retard the growth of the population, yet we may confidently hope that there will never be another 'butcher's bill' like that of the great famine, when the loss, directly by death and indirectly by diminished fertility, was between two and three hundred thousand. With the greatly improved railway system that now exists and the elaborate method of dealing with the first symptoms of scarcity that has been laid down, a loss on anything like such a scale can never occur again, so that we must expect to find the population increasing at no distant date up to the limit of the present means of production. Are we then to look forward to a general decline in the standard of living? It is to be hoped not, for it is low enough already. Where then is relief to come from? One answer is emigration and agricultural improvement. There may be other solutions, but unless some large industry which cannot, at present, be foreseen suddenly springs up, these must be only partial in their effects. Emigration both to Mysore and over sea to Burma, Mauritius and the Straits exists already, and there is plenty of room for its development. The Tanjore district affords an instructive instance of the way in which the people freely resort to emigration when

CH. XVIII.
SUMMARY.

The future outlook.

the pressure on the soil becomes intense. But while emigration deserves to be encouraged, as affording some relief to a population becoming congested, it is to the increase of production that our chief attention should be directed. It is not proposed to enter here upon the thorny path of the ryot's capacity or incapacity for his calling, but it may be stated, without much fear of contradiction, that the outturn of his fields could be appreciably increased, and the further proposition may be hazarded, that if the ryot finds that new processes pay, he will not be backward in adopting them. This was clearly shown by the readiness with which the improved Behea sugar-mill was taken into use in this and other districts. Ploughs of European pattern, on the other hand, failed to find favour, and there is still considerable doubt whether the native implement is not better suited to the ordinary tillage and cattle of the country. On the other hand, the ryot is frequently ignorant, dense of understanding, strongly wedded to old customs and lacking in enterprise, so that it is often difficult to induce him to try new methods or believe in results which are not fairly self-evident effects of a given cause. This *inertia* cannot be overcome in a day; it will take years of effort and education to make an impression upon it. High prices, however, may prove a more speedy stimulus, and if population increases faster than production prices are bound to rise.

If the conclusions set forth above are correct, the efforts of the State should be actively directed towards the advancement of agricultural knowledge and to the promotion of general education. Instruction, however, should not be purely literary; it must be largely technical, and studies bearing on agriculture must occupy the chief place in the technical curriculum. The State may also with propriety execute large irrigation works and thus increase the productive power of the soil and at the same time provide at least a partial safeguard against famine, and it may assist, by means of loans or otherwise, private undertakings of a similar nature. It should also see that the extension of cultivation and the improvement of lands already occupied are not hindered by an excessive land-tax, insecurity of tenure, or other defects in administration. Much more than this the Government cannot do. It cannot, for instance, forbid early marriages, for such a law would be attended with grave political danger and even if passed, would, like all laws that are in advance of public opinion, fail to attain its object. Nor can the State call new industries into existence, though it may and should encourage private enterprise by affording information and facilities for research and investigation.

CHAPTER XIX.

GAZETTEER.

ARCOT TALUK.

CHAP. XIX. ARCOT.

General description.

THE Arcot taluk is bounded on the north by Wálájá, from which it is separated by the Pálár; on the east by the Conjeeveram taluk of the Chingleput district; on the south by Wandiwash and the Arni jágír; and on the west by Vellore. Its length from east to west is about 35 miles, and its breadth about 12 miles; its total area being 432 square miles.

Hills.

Almost the whole of the taluk consists of a flat and undiversified plain; but on the west the Vellore hills run into it for 3 or 4 miles, and in its extreme eastern parts, near the great Mámandúr tank, a few insignificant hills are found. All these elevations are bare and rocky without any jungle growth.

Rivers.

The largest rivers are the Pálár and Cheyár, which, however, only skirt the taluk. A few small streams rise in the Vellore hills, and eventually fall into the Cheyár.

Soil.

The soil of the taluk is poor, being red and black clay mixed with a large proportion of sand or gravel, and as there are no local jungles, the land does not get much manure. Beyond limestone there are hardly any minerals, even building stone being scarce compared with the rest of the district.

Fauna.

The taluk has few wild beasts except in its western and hilly part, where cheetahs and wolves occasionally lurk. Fish are caught in large quantities in the Mámandúr and Kalavai tanks, Rs. 2,500 being the annual fish-rents for those reservoirs.

Climate.

The taluk is a fairly healthy one. The temperature is distinctly high in the hot months and the cold weather is of short duration. The ordinary annual rainfall is about 40 inches, but the variation from this mean is considerable. Thus, in 1887, the fall was 55 inches; but in the following year it was under 35. The south-west monsoon gives the most rain.

Communications.

There are no railways actually within the taluk but the Madras Railway to the north, the Villupuram-Guntakal line on the west and the Arkonam-Chingleput branch of the South Indian on the east offer sufficient facilities for transport.

The total length of roads in the taluk is 140 miles. The most important roads are from Arcot Railway station (in Wálájá taluk)

AP. XIX. ARCOT. to Wandiwash, with a branch to Conjeeveram, from Arcot to Arni, from Arcot to Vellore and from Arcot to Kannamangalam.

ministra- n. The taluk lies in the Sub-Collector's division. The chief local revenue officer is the tahsildar (salary Rs. 225). He is also a magistrate, but the bulk of the magisterial work is performed by the stationary sub-magistrate at Arcot. The taluk forms a single police division under an inspector, and is divided into six police station charges. In respect to civil actions it is situated within the jurisdiction of the district munsif of Arni. The number of villages, including the town of Arcot, is 260, and all but one are inhabited. Of the total number, 253 are Government villages, 6 are shrotriem or inám, and 1 is partly Government and in part a small jágír.

pulation. The population in 1891 was 176,878, of whom 87,460 were males and 89,418 females. The population of the Government villages is 172,002. Hindus number 165,831, Musalmans 9,674, Jains 1,066 and Christians 307. The population has increased by 20·01 per cent. since 1881 and there are now 409 persons to the square mile. The number of occupied houses is 23,860, and there are on an average 7·41 inmates to each house. Of the male population 78·75 per cent. are illiterate, 16·40 per cent. can read and write and 4·85 per cent. are learning. Of the females 99·28 per cent. are illiterate. Tamil is the mother-tongue of 143,332 persons, Telugu that of 27,730 and Hindustani that of 4,156. Classified by means of subsistence the population consists of 98,459 landholders and tenants, 28,210 agricultural labourers, 8,261 general labourers, 12,705 traders, 7,755 weavers, 7,471 other artisans and 14,017 'others.'

he land. The area of *ryotwári* land in the taluk is 249,500 acres, that of *minor ináms* is 16,736, and that of *whole inám* villages 10,240 acres. There are no zemindáris. Of the ryotwári land about 10,000 acres are under forest, and 52,500 acres are not available for cultivation. Of the remainder, 115,000 acres are in occupation and the area available for extension of cultivation is thus 72,000 acres, but nearly 25,000 acres of this are said to be unfit for tillage. The area cropped in 1892–93 was 109,500 acres of ryotwári land and 10,500 acres of minor inám, or about three-quarters of an acre per head of the population of Government villages. Including the area cropped more than once the extent was 142,000 acres.

Rice is the principal crop and is grown on nearly 65,000 acres in Government villages. There are about 15,000 acres under oil-seeds, over 1,000 acres under indigo and 850 acres under sugar-cane. Ragi, cumbu and horse-gram are the principal dry crops.

CHAP. XIX. ARCOT. The land.

Of the total area of ryotwári holdings in fasli 1302 the dry lands comprised 67,300 acres and the wet or irrigated lands 45,500 acres. The average assessment was Rs. 1–4–8 for dry and Rs. 5–6–5 for wet, or Rs. 2–15–2 for all lands taken together. There were in that year 20,428 single and 10,910 joint pattás and 14,651 of the former and 6,831 of the latter were for sums below Rs. 10. The normal land revenue of the taluk is Rs. 3,80,000, and the cesses charged on land revenue amount to Rs. 56,000.

The principal irrigation is from the Pálár anicut. The largest tank is that of Dúsi Mámandúr. Though the waterspread is not so extensive as that of the Kávéripák tank, the depth of water is much greater, and the supply lasts for fifteen months, while Kávéripák is exhausted in nine. The bund rests upon the bases of two hills, and islets rise here and there in the centre of the reservoir, making it the prettiest tank in the district.

There are altogether 408 tanks, 42 river channels and 55 spring channels, besides two private tanks and one private river channel. There are also 8,350 wells, of which 6,004 are used to supplement other sources of irrigation. The total area irrigated in 1892–93 was 67,000 acres, but if the area cropped more than once be included again for each crop the area irrigated was about 89,000 acres.

The agricultural stock in the Government villages is as shown in the marginal table. Interpreting ploughing cattle to mean bulls, bullocks and male buffaloes, there is one pair to every 6·10 acres in occupation, the district average being one pair to 5·45 acres; there are 17 cows and cow buffaloes to every 100 inhabitants, against a district average of 19; and there are 61 sheep and goats to each hundred acres in occupation, the average for the district as a whole being 83.

Bulls and bullocks	34,790
Cows	21,901
Male buffaloes	8,566
Cow buffaloes	7,614
Young stock	25,670
Sheep and goats	80,812
Ploughs	20,479
Carts	2,975

Products.

Agriculture, weaving, and tanning are the only important industries. The last is in the hands of Labbais, who chiefly reside in a large village named Visháram, west of Arcot. A great quantity of tanned hides are thence exported to Madras by rail. The weavers are collected in about forty villages, in which they have some 1,700 looms. The chief weaving villages are Tiruvattúr, Hasanamápet, and Venkatrájampet, each of which has about 200 looms, producing the ordinary country cloths.

Arcot: Population 10,928; the increase between 1881 and 1891 was only 210, or just under 2 per cent. Hindus number 9,077, Musalmans 1,757, Christians 92 and Jains 2. The population

CHAP. XIX. ARCOT. Places of interest.

is distinctly urban in character, the number of agriculturists being only about 2,400. Arcot is the chief town of the taluk and the head-quarters of the tahsildar, sub-magistrate, police inspector and sub-registrar. It has a post office, police station, dispensary, and a langarkhána or poor-house, but no travellers' bungalow. The railway station of Arcot is situated 4 miles away in the Wálájá taluk, and is 576·96 feet above the sea-level.

In order to distinguish it from Ranipet, which was generally called Arcot, this town used formerly to be known as Old Arcot. It is situated about half a mile to the south of the river, Ranipet being on the opposite bank. The name has already been stated to be derived from two Tamil words *áru* and *kádu*, which signify the six forests. When Adondai took possession of Tondaimandalam, he learned from the puránams that the country was sacred, having been the scene of the penances of various holy rishis who settled in the neighbourhood after Bramha performed his celebrated yágam at Conjeeveram. He therefore raised temples at Conjeeveram and other places, and introduced cultivation. In the course of time, however, the temples became deserted and the country relapsed into jungle, until the time of Bommi Reddi of Vellore, whose brother, Timmi Reddi, is locally believed to have built the Arcot fort.

Nothing is heard of Arcot in authentic history until the beginning of the eighteenth century, when it was chosen as the seat of the Government of the Carnatic instead of Gingee, which was unhealthy. Dáúd Khán either built or improved the fort, and laid out the town in eighteen streets, named after distinguished commanders, whose names are still attached to them. The nabobs continued to reside in Arcot until the time of Muhammad Ali, who removed to Madras, and was followed by the wealthy Muhammadan families that attended his court. Its trade, however, continued large for some years, and much gold lace and chintz were here manufactured and sold, until its young rival, Wálájápet, on the other side of the river, and only 3 miles distant, began slowly to draw away its commerce. For many years it has been a second-rate town, but its importance at one time may be judged of by the fact that it had no less than 360 makáns, or charitable institutions where fakírs were fed at the expense of the nabob and his nobles. The chief manufactures now are silver wire, imitation silver and gold lace, weaving of both fine and common female cloths, cotton printing and brass and bronze work.

The city was surrounded by a high rampart nearly 5 miles in circumference, 24 feet broad at the base, and 12 feet at the top, and faced with a thick masonry wall. This was called the

Places of interest.

Shahárpána or 'defender of the city,' and had five gates, the chief of which was the Delhi gate, which led out upon the bed of the Pálár. The northern wall followed the course of that river, and in parts had a wet ditch, with strong bastions at intervals embrasured for guns. The whole is now in complete ruin, having evidently at some time been blown up, for enormous masses of masonry lie in confusion about its foundations. In 1811 a flood in the river undermined some portion of the wall and still further completed its ruin; but the Delhi gateway still stands, and is an interesting relic, surmounted by a small chamber from which a pretty view of the river and opposite bank may be obtained. A tradition of doubtful authenticity asserts that this was a favourite resort of Clive. Within the city walls, and about half a mile from the river, are the ruins of the citadel so gallantly defended by Clive in 1751. It was a rectangular fortress of considerable size, surrounded by a shallow ditch, probably fed from the Pálár. Like the Shahárpána, its walls have been utterly destroyed, and its enclosure, as well as the ditch, are under cultivation. A poor masjid is the only building which now remains within the fort, besides two water reservoirs, fed by pipes from the river, in the centre of each of which are the remains of a fountain. An account of Clive's memorable defence will be found in the first volume of this manual. Outside the fort, but within a couple of hundred yards from it, are the ruins of the nabob's palace, built upon the verge of a large tank. The buildings were dilapidated in 1811, when the Collector proposed to pull them down as they were dangerous to the public safety. Now a couple of walls and the vaults which formed the basement alone remain of the main portion of the edifice. The old durbar room was formerly used as the taluk cutcherry; its proportions are mean in the extreme; indeed, as far as can be now judged, the palace could neither have been extensive nor magnificent.

Between the palace and the fort stands the tomb of Nabob Sádat-ullá-Khán, a domed structure, about 50 feet in height, and built, without much ornament, of green stone, each block being beautifully cut and fitted into its place. A monthly allowance is made by Government for the decoration of the tomb and the performance of religious ceremonies. Close to it is the principal mosque, the Jamá Masjid, of considerable dimensions, but without anything particularly attractive about it. It was built by Zulfikár Khán, and added to by both Sádat-ullá-Khán and Anwar-ud-dín. On one side is a plain platform of brick and chunam, marking the spot where the body of the latter nabob rested after it was brought in from Ambúr, and before it was sent to Hyderabad. In the centre of the town is an unfinished mausoleum of

CHAP. XIX. ARCOT. Places of interest.

green stone, where the remains of Názir Jang reposed until they also were taken to Hyderabad. The people of Arcot explain the cause of their removal by saying that the spirit of Tippu Aulia, a very holy fakír, whose tomb is just on the other side of the street, insisted upon it. He appeared to the nabob's relatives in a dream and remonstrated with them for burying Názir Jang so close to him, and in a tomb so much more splendid than his. The dream was disregarded, and the structure continued to its present height, but every stone subsequently placed in position mysteriously fell down during the night. The builders were thus forced to desist, and the nabob was eventually buried in the northern capital.

Tippu Aulia's tomb is regarded with particular veneration by Muhammadans. Hyder is believed to have selected this fakír as his patron saint, and to have named his son Tippu after him. The building is of brick and stucco, with an inscription giving the date 1142 Hijira, and stating that Sádat-ullá-Khán raised it. There are many other notable tombs, each receiving an allowance from Government, where weekly ceremonies take place, and upon anniversaries Muhammadan beggars are fed. Besides the Jamá Masjid there are twenty-two other places of Musalman worship in the town, all largely attended.

Tiruvattúr, *Tiruvettúr, Tiruvettipuram or Tirvettore*: Population 1,866; sub-registrar's office; post office; police station; travellers' bungalow; dispensary. This is a village of some size, close to the northern bank of the Cheyár river. It was once the head-quarters of the old Tiruvattúr taluk, and had a District Munsif's court as well, which gave it an importance which it no longer possesses, and its trade is now inconsiderable. Agriculture and weaving are the chief industries, the number of looms at work being about two hundred. Tiruvattúr appears formerly to have been one of the principal towns of the Jains, and its temple probably belonged originally to those religionists, who were subjected to the dreadful persecutions referred to in the local puránam. It states that when the rákshasa Sómakásuran stole the Védas, the rishis could not, from want of them, perform their ceremonies. Then Siva appeared in the form of an aged man and taught them the holy writings, at which they were greatly rejoiced, and building a temple, worshipped Siva under the title of Védapuri-Íswara. The Jains however questioned the authenticity of the new Védas, and one of their powerful kings, living at Púnávati,[1] once a large

[1] The foundations of the old Jain temple still appear in this village, but the walls were pulled down to raise those of the Tiruvattúr temple. Two large Jain idols lie prostrate on the ground, and not far from them is a pool, in which the brazen doors and treasure of the Jain temple are supposed to be buried.

Places of interest.

town but now a deserted village on the opposite side of the river, by a yágam produced a gigantic serpent which he sent to devour one Gnánasambandamúrti, the most successful of the supporters of the new scriptures. Siva appeared as a snake-charmer, subdued the reptile by the strains of his pipe, and sent him against the Jains, whom he began to destroy. At last they submitted, and the king with many of his people became Saivites. Some of the Jains still denied the truth of the Saiva religion, and it was agreed that the rival Védas should be subjected to an ordeal by being dropped into the flood of the Cheyár. The result was that the Jain book floated down the river as far as Anapattúr, while the Bráhman Védas moved against the stream for a distance of two miles to Cheyáttaivenrán, 'the conqueror of the Cheyár.' The Jains had to submit to the penalty agreed upon: some were hanged, some cut to pieces, and many crushed in oil-mills. These modes of execution are represented by sculptures upon the walls of the temple. A remarkable piece of sculpture exists within the temple in the shape of a palmyra tree bearing male blossoms on one side and female blossoms on the other. It is about 8 feet high, cut out of a single stone, and placed under a small mantapam. It is believed to be the work of Siva, as a representation of himself and Parvati united in one body. On this account he is here called Ardhanáriswara, and the fact that the god forms the right portion of the sculpture is said to account for the right hand being usually more powerful than the left. The name Tiruvattúr is composed of the words *tiru*, *véda*, and *úr*, and means the village of the sacred Védas, having reference to the legend composed by the Bráhmans for the temple; but another derivation is from *tiru-ádi-úr*, where *ádi* means 'the first one,' *i.e.*, Siva.

Timiri: Population 4,459; post office; police station; situated about 7 miles south of Arcot, on the Arni road. It is chiefly interesting from its historical associations, having a small fort alleged to have been built by Timmakkál, sister of that Bommi Reddi who constructed the Vellore fort. After the Muhammadans got possession of the place, it was given, with a jágír worth a lakh of rupees, by the Emperor Muhammad Sháh to one Fazl-ullá-Khán, the son of one of his ministers, as a reward for the faithful services of the latter. It was held on condition of garrisoning and provisioning the fort, and was continued on those terms to Mír Muhammad Khán, son of the first jágírdár. During the time of Muhammad Ali it was resumed and never again restored. Timiri was captured by Clive in 1751, after the successful defence of Arcot, and was held by the British until 1758, when it surrendered to D'Estainge: Major Munro recovered it in 1760. The fort was partly destroyed during the Carnatic wars, and when

CHAP. XIX. ARCOT.

the Pálár anicut was built the remaining stones were carried away and used in that work.

Places of interest.

Pancha Pándava Malai is the name of a small rocky hill and an insignificant village about 4 miles south-west of Arcot. The village is wholly without interest, and the hill only remarkable for the ancient sculptures which it contains, and which, being ascribed as usual to the five Pándavas, has given the hill its present name.

The principal sculpture is a large cutting into the eastern face of the hill, where the granite rock slopes down very precipitously. This is called the 'Yézhu vásalpadi,' or seven thresholds, as six rough pillars about 2 feet square stand at the entrance and form seven doorways. An inner line of similar pillars supports the roof and corresponds with the outer line. The chamber is altogether about 50 feet broad, 9 feet high, and 16 feet deep: opposite to each of the entrances are recesses in the wall which may at some time have contained figures. The cutting is very rough, and the chamber entirely without ornament or inscription. A short distance above it, upon the face of the rock, is cut a figure, some 2 feet square, which seems to represent Buddha or one of the Jain 'tírtankaras.'

Other sculptures are found on the southern side of the hill, and about a third of the distance up it. Here an enormous flat rock has fallen upon some smaller ones, forming an extensive cave about 3 feet high. In a crevice of the rock is a pool of water, and near it are two apparently very ancient inscriptions which no one can decipher, and some figures cut in relief. One group of five is said to represent the five Pándavas, who, when wandering in the forests, are supposed to have lived sometimes in the rock mantapam on the east of the hill, and sometimes in this cave. Here again is a figure of a Jain or Buddhist idol more skilfully carved than that first referred to. There can be little doubt that the mantapam at least is of Jain origin, used perhaps, as well as the cave, by Jain recluses. The place has now been taken possession of by the Musalmans, who have several tombs in and around the cave, besides a small masjid. The principal tomb is that of Saiyad Mír Yássam, a saint whose wife and children are also buried close by.

Mámandúr or *Dúsi Mámandúr*, as it is called to distinguish it from the Mámandúr in Chendragiri: Population 1,942; police station; post office; travellers' bungalow (Public Works Department). Mámandúr is a purely agricultural village irrigated by the large tank already referred to. It is chiefly remarkable for rock cuttings similar to those in the Pancha Pándava Malai, and here

Places of interest.

also attributed to the Pándavas. The bund of the tank rests upon two low hills, and in the most southerly of these the excavations are found all upon the eastern face. Two of the four are close together and are small, having but two pillars each, but they are not so roughly cut as those near Arcot, and both have long inscriptions which have been much defaced owing to the flaking off of the surface of the rock. In one of them are six large figures, apparently representing heroes, cut between the recesses at the back of the chamber.

The third cutting is the furthest to the south, and by far the largest of all, but it was never finished and has therefore no inscriptions. There is a double row of some six or seven pillars with the usual recesses behind them, but these are here peculiar in that each has two hollows cut in the rock below, and two corresponding ones above in which doors must originally have worked. The chamber is close to where the southern face of the rock begins, and from the south a commencement has been made of cutting entrances from that side. These excavations were probably also the work of the Jains, and possibly a party of monks from Conjeeveram, only 7 miles distant, may here have hollowed out for themselves a retreat with narrow cells into which each might retire and indulge in uninterrupted meditation. The last cave is of small dimensions and without ornament or inscription.

Below the tank bund are a few remarkable specimens of kistvaens, constructed of flat boulders which have evidently not been quarried. The covering stone of the largest is about 12 feet square and 2 feet thick in the middle, supported upon eight or nine rough boulders buried perpendicularly in the ground. A space has been left as an entrance upon the eastern side by omitting one of the supporting stones.

On the verge of the tank, and within the limits of Dúsi village, is a big rock completely covered with an inscription in Tamil and Grandham characters. It records a grant of land by Srí Ranga Víra Mahárájá Raghuvíra Rájá in S.S. 1505. Buried in the soil of the bund are three stones, also bearing inscriptions, probably stating the date of the construction of the tank and its author. The latter is said to have been Venkatádri Naidu, Poligar of Kálahasti, who named the tank Chennasamudram (a name it still bears) after his father Chennappa Naidu. When granting the English a settlement at Madras, he similarly stipulated that that town should be called Chennapatnam. A detailed account of the Mámandúr antiquities will be found in an article in the *Madras Journal of Literature and Science* for 1879.

Kalavai: Population 3,823; police station; post office. A considerable village, with a large tank; distance from Arcot 11 miles.

CHAP. XIX. ARCOT. Places of interest.

Kízhmunnal: Population 2,375; a village 6 miles west of Arcot on the road to Vellore. There is a small forest plantation and a bungalow here. On the walls of the old temple in the village are some 'illegible' inscriptions.

Véppúr: Population 1,087; this village is 2 miles west of Arcot, and contains one of the six forest temples (see notice of Ranipet), which were erected to the rishis by a Chóla king. The Véppúr temple is dedicated to Vasishta rishi.

Visháram: Population 3,995; between Arcot and Vellore; is the site of another of the forest temples, dedicated to the rishi Válmíki. Close to the side of the road, a few hundred yards to the west of the village, are three curious tumuli. They show very clearly a double circle of large boulders, and the circumference of the largest is 140 yards, its height being nearly 20 feet. Excavations show that there is a large amount of mortar in the soil. The population consists chiefly of Labbais.

Púnkádu, or 'the forest of flowers,' is 4 miles from Arcot, close to the Pálár anicut, where there is a Public Works Department bungalow. This is the site of the third of the three forest temples situated in the Arcot taluk; the other two are in Wálájá taluk. The Púnkádu temple is dedicated to Bháradwája rishi.

ARNI JÁGÍR.

ARNI. General description.

THIS jágír is bounded on the north by the Vellore taluk; on the east by Arcot and Wandiwash; and on the south and west by Pólúr. Its area is 180 square miles.

Rivers.

The Cheyár or Bahudánadi cuts off a small portion of the south-east of the jágír, but the country is chiefly drained by the Seyár or Kamandalanadi. This river rises in the Javádis, and descends into the plains near Padavéd in Pólúr, after which place it is often called. Soon after entering Arni it receives the waters of the Náganadi, also springing from the Javádis, north of Padavéd. The united waters flow past the town of Arni and join the Cheyár just east of the jágír. There is generally a small flow of water in the sandy bed of the river, and springs are numerous.

Forests.

The estate is for the most part flat and open, without much jungle growth, but there are three tracts of scrub, the largest in the south near the villages of Murugamangalam and Karappúr; another on the north between Sirumalúr and Mullandaram in the Arcot border; and the third on the west, by Kastambádi. The few hills

are of very slight elevation. The highest are those near the villages of Sirumalúr, Púsimalaikkuppam, and Puttúr, which are sparsely wooded and kept under strict conservancy. Besides these there are the Dévikápuram hill, having a celebrated temple upon its summit, and the Vannándurgam or 'dhoby fort.'

CHAP. XIX. ARNI. Hills.

The jágír was acquired early in the seventeenth century by one Vádáji Bháskar Pant, who accompanied Sháhji in his expedition into the Carnatic, and received the estate in reward for his military services. With but few interruptions the jágír was held by his successors upon the very favourable condition of paying an annual nuzzer of Rs. 10,000. Added to this are the obligations of suitably supporting members of the family, erecting no fort or stronghold in the country, retaining no military force, and imposing no unauthorised cesses. The present nuzzer amounts to a little more than Rs. 5,000, reductions on account of the relinquished móturfa, &c., having been made.

History.

The jágír lies in the Deputy Collector's division. The chief local magisterial officer is the sub-magistrate (salary Rs. 120) who also attends to the revenue work of the division. The taluk forms a single police division under an inspector, who is also in charge of the Pólúr taluk, and is divided into three police station charges. In respect to civil actions, it is situated within the jurisdiction of the district munsif of Arni. The number of villages is 192, and all but thirty are inhabited. Of the total number one (Kil Arni) is a Government village, 51 are shrotriem, mokhása or inám villages, and the remaining 140 are jágír.

Administration.

The population in 1891 was 91,730, consisting of 45,472 males and 46,258 females. Hindus numbered 85,722, Musalmans 3,411, Jains 1,639 and Christians 958. The population has increased by 24·94 per cent. since 1881, and there are now 510 inhabitants to the square mile. The number of occupied houses is 12,377, and there are on an average 7·41 persons to each house. Of the male population 80·80 per cent. are illiterate, 14·76 per cent. can read and write, and 4·44 per cent. are learning. Of the females 99 35 per cent. are illiterate. Tamil is the mother-tongue of 74,508 of the inhabitants, Telugu that of 12,273 and Hindustani that of 1,661. Classified by occupation there are 49,480 land-owners and tenants, 8 911 agricultural labourers, 4,673 general labourers, 7,249 traders, 7,482 weavers, 5,022 other artisans and 8,913 'Others.'

Population.

The approximate area is 115,200 acres, of which 44,476 acres are ináms of various kinds, leaving about 70,000 acres as the extent of the ayan ayacut. Of this rather more than a half, or 32,840 acres, bearing an assessment of Rs. 1,46,179, are occupied, while of the inám lands only 13,300 acres, assessed at Rs. 61,678,

The land.

CHAP. XIX. ARNI. The land.

are under the plough. Of the cultivated ayan lands 18,800 acres are dry, assessed at Rs. 42,900; 13,800 acres are wet, assessed at Rs. 1,00,700; and 147 acres are garden lands, assessed at Rs. 2,490. The jágírdár's land revenue is about a lakh and-a-half per annum. The average for the six years before the great famine was Rs. 1,33,000.

The sources of irrigation are ayan tanks 163, inám tanks 53, ayan river channels 35, inám river channels 8, anicuts 7 (two out of repair), jágírdár's wells 1,207, private wells 3,600. All these are in very good repair, the Court of Wards, during the present jágírdár's minority from fasli 1281 to 1283, having restored many, and the example thus set having been followed by the present proprietor on attaining his majority. Besides the two rivers referred to, there is an extensive flood drain called 'maduvu,' into which many of the tanks surplus, and across which dams have been built to divert the water into other tanks. This maduvu never fails even in the hottest months.

The principal tanks are those of Kámakkúr, Tac'chúr, Tirumalasamudram, Kolattúr and Panaiyúr. The soil is chiefly sand mixed with red clay, and the assessments are extremely high. There are four classes for wet lands, but in these there are no less than 157 different rates ranging from Rs. 18-6-0 to Rs. 2-2-2 an acre. In the first class alone there are nearly 100 rates, varying from Rs. 18-6-0 to Rs. 3-12-6 per acre; thus the first class wet rate of one village is not the same as that of another, but in every village the second, third, and fourth classes are each three-fourths of the class just above them. The same complication exists in the dry and garden assessments. Of the former there are three classes, containing 72 different rates, the first class running from Rs 4-4-3 to Rs. 1-10-4, and the lowest rate of the third class being therefore As. 14-10. There is but one class for garden lands with fifteen rates, varying from Rs. 26-4-0 to Rs. 11-13-0 per acre. Bráhmans are everywhere allowed a remission, paying three-quarters of the amount that any other caste would have to pay, and in about twenty-five villages favourable rates have been allowed by various jágírdárs to favourites. These are known by the names of the original grantors, as Nágóji Rao's rate, and so on. The assessments were until 1805 paid in kind, but in that year Mr. Ravenshaw, the Collector of South Arcot, managed the estate on behalf of the Court of Wards, surveyed it, and commuted the average grain payments into money rents. Four kalams were considered the equivalent of a rupee in the case of Súdras, and 5, 5½ or 6 kalams in the case of Bráhmans. This accounts for the great variety in the assessments. The ordinary ryotwári system now drevails, and the cultivators possess the right of disposing of their

CHAP. XIX. ARNI.

The land. Products.

lands by sale. The soil is poor and leaf-manure not generally procurable, so that the outturn cannot be very high. The ordinary annual rainfall is from 35 to 40 inches.

Having hardly any hills, Arni has hardly any minerals. A little iron sand is found, but is not used. The red earth of Tac'chúr is well known and is exported to the neighbouring districts. It is used for preserving dholl which is soaked in a solution of it as soon as harvested. Stones for pounding sandal wood are also exported from Tac'chúr.

The principal manufacture is weaving. There are upwards of a thousand looms, distributed among fourteen villages, and producing some 200,000 women's cloths in a year, worth about Rs. 7,50,000. The best fabrics are woven in Arni itself, where they are made of a mixture of silk and cotton, and are much worn by the more wealthy Bráhman women. The price of these varies from Rs. 7 to Rs. 50 and many are exported to Mysore. The celebrated Arni muslins are, however, not made here, but in the Chingleput district, not far from Mádarpák. Besides weaving, dyeing of piece-goods and mat-making are carried on. At Chévúr, a village near Arni, coarse mats are woven by Jain women out of 'jechai' leaves (*Phœnix farinifera*). The mats sometimes have simple patterns in red and black. A somewhat superior sort of pottery, glazed and unglazed, is also produced in the jágír.

Roads.

There are 75 miles of road in the jágír maintained by the Local Boards. The most important are the Vellore-Wandiwash road which passes through the town of Arni, and the roads from Arni to Arcot, Arni to Pólúr and Arni to Chetpat; the last mentioned goes on to Gingee in South Arcot.

Arni: This town is the largest in the jágír and the headquarters of a deputy collector, deputy tahsildar, district munsif and a sub-registrar. Has a post office, telegraph office, and a police station. Nearest railway station is that of Kalambúr on the Villupuram-Guntakal line. The town of Arni comprises the eleven villages of Arnipáliam, Arni-tóttam, Sharpanapet, Kíl Arni, Gurupádampet, Kákásáhibpet, Mallasettipet, Nágójiráyanpet, Pratápsingpet, Tirumalasamudram, and Vandipáliam. The population of the whole is 12,489. Kíl Arni is a Government village, usually included the Pólúr taluk. Arni lies upon the southern bank of the Kamandalanadi, and has two large tanks, one on the east and another on the south. There is nothing particularly interesting in the place, except the fort, a large, almost square structure, which has been much dismantled. Its site, including the glacis, lies in the Government village of Kíl Arni, and the stones from the walls

CHAP. XIX. ARNI. Places of interest.

have therefore been freely used by the Public Works Department. The zigzag entrance is upon the southern side, but the present approach is through a gap in the fortifications in the east. Until thirty years ago Arni was a military station, and at one time a very large one, as the long lines of deserted barracks testify. The buildings are fast falling into disrepair, but portions are used as the district munsif's court, the deputy tahsildar's office, the Public Works Department and Post offices. There are two old European cemeteries near the western walls, much neglected. An imposing monument in the shape of a high column stands on one side of the old parade ground, built, as the inscription shows, by an officer of the garrison in memory of a brother officer whom he shot in a duel (see 'List of Tombs'). At the north-west angle of the enclosure is a fine old temple, somewhat recalling that in the Vellore fort, though it has no superior sculptures. Not far from the fort walls there is, as at Vellore, a large fresh water tank called the Sûrya-gunta. The fort is believed to have been built by Ganapati Ráyalu, brother of Krishna déva Ráyalu, whose name is connected with Vellore.

Sattiyavijayanagaram: This town (population 3,767) is so called after the holy Mádhva priest Sattiyavijayaswámi, who died here, and over whose burial place a *math* was raised many years ago. The spot is visited by many votaries of the Mádhva sect from all parts of the country.

Sattiyavijayanagaram has continued to be the residence of the Jágírdárs of Arni since 1762, the year in which the fort, which till then had been their residence, was taken possession of by the Nabob of Arcot. The village is a mile and-a-half to the east of Arni, and on the opposite bank of the river. The Jágírdár's palace consists of two fine buildings of modern construction, and said to be in the Italian style of architecture.

Dévikápuram, or 'the city of the goddess,' with a population of 2,334, is principally noteworthy for its temples. The most important of these is dedicated to the goddess Brihatámba, and is situated in the town, while that of her spouse, Kanakagiri Íswara, crowns the adjacent hill. The former temple was built by the Chóla Rájá Tondaimán Chakravarti, who is said to have begun his mission of temple building at this place. It is regarded as second in importance only to Tiruvannámalai, and attracts to the place a large number of worshippers. The goddess is one of the four brought into existence by Brámha.

Kunnattúr: Population 410; is about 5 miles from Arni by the side of the road from Vellore. It is interesting from the fact that it was during the last century a considerable cavalry station.

Places of interest.

To the north of the road is a large European cemetery, containing a great many old monuments, on none of which, however, are there inscriptions. Reed mats, similar to those of Wandiwash, are made here.

Mullandaram: Village; population 2,307. Contains two old temples.

Kolattúr: Population 1,604; is the principal village of the tributary jágír or mokhása of same name.

Vinnamangalam: Population 1,162; police station; is known for the country locks made there.

Chévúr: Population 2,611; has a comparatively large Jain population. The Jain women weave coarse mats out of a date fibre.

CHENDRAGIRI TALUK.

CHENDRAGIRI.

General description.

The taluk of Chendragiri is the most northerly in the district, and adjoins the Cuddapah frontier. It is bounded on the north by the taluks of Pullampet and Váyalpád of that district; on the west by the Punganúr zemindári; on the south by the Chittoor taluk and the zemindári of Kárvetnagar; and on the east by portions of that estate and of Kálahasti. Its area is 548 square miles; the average length being above 35 miles, and the average breadth about 16 miles. The present taluk was formed in 1849 by the amalgamation of the two old taluks of Tirupati and Pennamari, as the latter were small and the relinquishment of the Tirupati offerings by the Government had made the Tirupati tahsildar's charge a light one. The taluk now contains two divisions, Chendragiri and Tirupati, in charge respectively of a tahsildar (Rs. 150) and a deputy tahsildar (Rs. 120), the latter being subordinate to the former in revenue but not in magisterial matters. There is also a stationary sub-magistrate (Rs. 100) at Chendragiri.

Chendragiri is one of the most hilly and picturesque taluks in the district. The Eastern Ghauts run through the north of it, and the Kárvetnagar hills occupy most of the south. It may indeed be said to consist of hills, more or less bare and rocky, and of narrow valleys rich with the alluvial soil brought down from the hills. Its physical characteristics render it one of the most fertile divisions of North Arcot, the water-level being always high, and the scrub jungles upon the hills affording abundance of

CHAP. XIX. CHENDRAGIRI. Mountains.

leaf manure, which the ryots are not backward in using. The Chendragiri cultivators are probably the best in the district: hard-working since they are Telugu men, and fond of high farming since they have the means.

The most considerable and interesting hills in the taluk are those of Tirumala, upon which the sacred temple of Tirupati stands. This range, upwards of 2,000 feet high, forms portion of the Eastern Ghaut line, and is about 100 square miles in extent. The whole area is considered sacred, and until the close of 1871 had never been ascended by any but Hindus. In that year the prestige of ages was broken through, and the hills were, by a Government order, thrown open to the European officers of the district, since there was reason to suppose that much crime was perpetrated without detection in the holy town. The order excited great opposition at the time, but European visits now produce little sensation. These hills are of quartzite, while the rest of the taluk belongs to the gneissic formation. They rise rather gradually from the south-east, but their western, southern, and eastern faces are steep and cliff-like. On the north the hills run into Cuddapah, their continuation being there known by the name of the Séshâchalam range. The chief valleys are those of Dámalcheruvu, Nágapatla, Tirupati and Mámandúr.

Rivers.

Two principal rivers drain the taluk. That called after the village of Dámalcheruvu rises in the Kallúr pálaiyam, flows down the ghát, and passes for a short distance along the west of the Chendragiri taluk into that of Chittoor, where it is known as the Ponné. The Swarnamukhi is the more important stream, and is held in much reverence by the people. One of the feet of Siva is supposed to rest upon it, and consequently to celebrate the annual ceremonies of a deceased parent near its banks is a very meritorious act. It is called the Swarnamukhi, or golden river, since it rises in, or rather near, Mount Méru; the Tirupati hills being believed to be portion of that holy and golden mountain. Others explain that it is precious as gold, and thereby obtained its name. The river takes its rise near the village of Adenapalli, in the Chittoor taluk, where a gigantic figure of Hanumán (the monkey god) is engraved upon a rock, whence the water rises and flows into a tank. From the surplus of this it continues and passes northwards, and then to the east along the Tirupati valley, receiving the waters of many hill streams on its way. After a course of 78 miles in this district, and 21 miles in Nellore, it discharges into the sea. The chief of its affluents are the Kalliánanadi and the Bhímanadi. The former comes down the Sámala valley, north of Chendragiri, and is rarely quite dry. The Bhímanadi rises near Mangalapenta, in the Pulicherla pálaiyam, and unites with the Swar-

namukhi near Bhákara-agrahάram, a hamlet of Chendragiri town. It is believed to have originated from a sacrifice made by Bhíma, one of the five Pándavas, while he and his brothers were wandering in the jungles. As a proof of the truth of this story the people point to some white decomposed shale near the spring of the river, which they regard as the ashes resulting from the sacrifice. The white clay is esteemed to be very holy, and being mixed with milk is often used by pious Bráhmans for making their sectarian marks.

Rivers.

Unlike most other large rivers in the district, the Swarnamukhi has generally a little water in it, except for a short distance between Chendragiri and Tondaváda. The disappearance of the water here was caused, so the story runs, by the rishi Agastya, who used to live on Chendragiri hill. While he was deeply meditating one day, the stream rose so high as to threaten to invade his retreat. In his excitement he cursed the river, and prayed that it might flow beneath the surface of the soil; and now it does so, except in times of flood. Very little is done in the way of conserving the waters of the Swarnamukhi, though it has great capabilities, and an anicut might probably be constructed across it, near Chendragiri, with advantage to the people and profit to Government.

Forests.

The forests of Chendragiri are the most extensive and valuable of any in the district. The best grow along the eastern slopes of the Tirupati hills, being the southern continuation of the Bálupalli jungles of Cuddapah. Of the best forest about 50 square miles belong to the poligars of Karakambádi and Krishnápuram, who continue to fell in a reckless manner. In the Government forests, which are about 110,000 acres in extent, there is much red sanders wood of considerable value. Almost all the trees to be found elsewhere in the district are to be found here, and really fine trees are still to be met with in spite of past reckless felling. Careful conservancy is now doing much to restore the jungles, and the timber will soon be of great value. A good deal of bamboo is cut upon the slopes of the Tirupati hills, and upon their summit the sandal and champak flourish. A superior sort of orange tree, called the Hyderabad graft, is also here cultivated, and the fragrant flowering trees, zédári and kódári, are said to be peculiar to these hills. Jungle products, such as honey, wax, medicinal roots, lac, dye, cocoons, &c., are plentiful and sold in large quantities by the jungle men.

Some of the gorges of the Tirupati hills are charmingly pretty, often ending in a not insignificant waterfall surrounded with dense vegetation. In the moist and sheltered portions of the plateau patches of forest also occur, and many ferns, including the graceful

CHAP. XIX. CHENDRAGIRI. Forests.

maiden hair, grow among the rocks and by the sides of the streamlets. The taluk is everywhere better wooded than is usual in the rest of the district, and has a comparatively fresh and green appearance even in the height of the hot weather. A large extent of pasture is available, and cattle in the dry season are brought here from some distances to graze. During the great famine this was particularly observable. Grazing in the Government forests has, however, been considerably restricted of late.

Geology.

For a detailed description of the geology, reference should be made to the first volume. The soil chiefly consists of black and red clays mixed with sand, of which the red soil is considered the more fertile. At Tirupati, Chendragiri and Aitepalli lime-stone is found in some quantities. Iron sand is gathered in the beds of streams near Sámala, Aitepalli and Bandálamalai, in which villages it is smelted and made mostly into the plates of ploughshares.

Fauna.

Game is fairly abundant. Cheetahs are only too common to please the ryot, and a tiger occasionally spreads terror for months together in the Tirupati jungles. Bison are spoken of as having been common in former days, but are never seen now. Peacocks with the ordinary feathered game of the district are numerous upon the hill slopes.

Climate.

The annual rainfall is between 34 and 35 inches. The fall from January to April is about an inch and-a-quarter, in May there is rather over 2 inches, the south-west monsoon gives 14½ inches, and the remaining 16¼ inches fall in October, November and December. The valleys of the taluk are, on the whole, healthy, though at times fever is prevalent. A like favourable account cannot be given of the hills, and particularly of the Tirupati range, where the climate is deadly, and a residence of even a few days ensures an attack of malarious fever. Even the priests of the temple frequently relieve one another in doing duty at the shrine, but a few bairágis reside permanently in the upper town, where they are invariably the victims of spleen and other diseases resulting from fever.

Administration.

The taluk lies in the Head Assistant Collector's division. The chief local revenue officer is the tahsildar (salary Rs. 150). He is also a magistrate, but the bulk of the magisterial work is performed by the stationary sub-magistrate at Chendragiri and the sub-magistrate at Tirupati. The taluk forms two police divisions each under an inspector, and is divided into ten police station charges. In respect to civil actions it is situated within the jurisdiction of the district munsif of Tirupati, the old Mogarála pálaiyam, however, being included in the Chittoor munsif's division. The number of villages, including the town of Tirupati, is 282, and all but 50 are

inhabited. Of the total number, 54 are Government villages, 43 are shrotriem or inám, and the remaining 185 are situated in the pálaiyams.

CHAP. XIX. CHENDRAGIRI.

Population.

The population in 1891 was 114,436, consisting of 108,661 Hindus, 5,250 Musalmans, 519 Christians and 6 'Others.' The Hindus form 94·95 per cent., and the Musalmans 4·59 per cent. of the total population. The males number 58,468 and the females 55,968. The population of Government villages is 75,849. The population has increased by 22·85 per cent. since 1881, and there are now 209 persons to the square mile. There are 22,596 occupied houses, and, on an average, 5·06 inmates to each house. Of the male population 7,127 can read and write, 2,007 are pupils and 49,059, or 84·30 per cent., are illiterate. The remaining 275 made no return. Telugu is the mother-tongue of 93,931 of the inhabitants, Tamil that of 12,771, and Hindustani that of 5,223. As regards occupation 61,718 persons are land-owners or farmers, 10,318 are agricultural labourers, 9,045 are general labourers, 9,832 are traders, 2,331 are weavers, 6,366 are other artisans and the remaining 14,826 follow some other calling.

The land.

The area of *ryotwári* land in the taluk is 223,900 acres, that of minor ináms 14,427 acres, that in whole inám villages 22,400 acres, and the balance, 89,910 acres, is zemindári. Of the ryotwári and minor inám land about 110,000 acres are forest and 74,000 acres are not available for cultivation. Of the remaining 54,000 acres about 41,000 acres are occupied, so that the area available for the extension of cultivation is 13,000 acres. It is said, however, that much of this is not really fit for tillage, and the area likely to be taken up is put down at 1,000 acres only. The pressure of the population on the soil is greater than in any other taluk, except Vellore; but as already stated, the soil is wonderfully fertile. Of the total area of *ryotwári* holdings in fasli 1302, the dry lands comprised 19,640 acres and the wet or irrigated lands 6,210 acres. The average assessment was Rs. 1-1-7 for dry and Rs. 6-11-3 for wet, or Rs. 2-7-1 for all lands together. There were in that year 4,387 single and 3,836 joint *pattás* and 3,625 of the former and 2,825 of the latter were for sums under Rs. 10.

The normal land revenue of the taluk, excluding the peshkash of zemindáris, is about one lakh of rupees, and the cesses charged on the land revenue amount to about Rs. 16,000. The peshkash of the pálaiyams is Rs. 9,000.

Including both first and second crop, the area in Government villages (*i.e.*, ryotwári and minor inám lands) under rice in 1892-93 was 11,000 acres; 7,400 acres were under cumbu, 5,000 acres under ragi, 2,000 acres under cholum, and 6,000 acres under

other food grains, including pulses. Of special crops, sugarcane was grown on 664 acres, and oil-seeds on 2,100 acres. The area cropped more than once was 9,000 acres, of which 6,800 acres were ryotwári land and the rest minor inám.

The taluk contains 401 Government (including *dasabandam*) irrigation works, of which 160 are tanks, 69 are river channels, 150 spring channels and 22 *doravu* wells. Besides this there are 4,895 private wells, of which 1,517 are situated in fields classed as wet and supplement the ordinary irrigation. The irrigation works are in fair order. One of the most remarkable tanks is that of Rangampet, built between two hills with a bund some 40 feet in height. It was for long breached, but was restored about 1860, when the calingula was built so low that it now holds but little water. It used to be supplied by a channel from the Kalliánanadi, which has quite disappeared, and it seems doubtful whether it would pay to restore it. Another tank, that of Sámala, at the head of the valley is a magnificent work, but breached. It receives all the water of the Kalliánanadi, and has a large waterspread, now a thick jungle, where good shooting is to be had. The tanks of Pérúr, Tirupati and Dámalcheruvu are other large ones.

The agricultural stock in the Government villages is as shown in the marginal table. There has been a great decrease during recent years in the number of sheep and goats, and this is ascribed to the extensive reservation of forest lands and the restriction of grazing therein. Large numbers of these animals are said to have been sold and carried away to other places. Interpreting ploughing cattle to mean bulls, bullocks and male buffaloes, there is on pair to every 4·93 acres of land in occupation, the district erage being a pair to 5·45 acres; there are 19 cows and w buffaloes to every 100 inhabitants which is the same as the average for the district; and in spite of the decline in the number of sheep and goats there are still 103 to every 100 acres occupied, a proportion which is exceeded only in Chittoor, while in the whole district there are only 83 to each hundred acres. There is one plough to every 5·6 acres in occupation, the district average being one to every 5·8 acres.

Bulls and bullocks	14,944
Cows	10,391
Male buffaloes	1,576
Cow buffaloes	3,769
Young stock	15,201
Sheep	20,995
Goats	21,073
Ploughs	7,218
Carts	1,687

The manufactures of Tirupati and its neighbourhood are not unimportant. Tirupati and Agarála are noted for images cut out of red sanders wood. The carving is rough but clever, and the prices of the images very moderate. Out of the same wood are

Products.

cut at Tirupati and Jípálem, culinary utensils, a manufacture quite peculiar to these places. Brass vessels and plates are largely made at Tirupati and Mallavaram, and are skilfully engraved with floral devices or pictures illustrating the religious fables of the Hindus. In Tirupati a few artificers vary this work by inlaying silver and copper upon the brass, and their wares are by some much admired. Copper images are made at Tirupati and Perumállapalli, but all that is sold here is not of local manufacture. The demand probably exceeds the local supply, and there is reason to suspect that many of the idols are of Birmingham manufacture imported from Bombay; the brazen vessels are many of them of Vellore make. Another purely local industry is the making of stones for rubbing sandalwood into powder, out of a sandstone called 'Gandhapúsanarai,' which is quarried by Woddas near Tirupati and Mámandúr. Almost every pilgrim carries away one of these stones with him, the price varying, according to size, from a few pies to Rs. 10. At the village of Gázulamandem glass beads are formed, while bangles are made at Tirupati from lumps of glass purchased from the manufacturers of Soudapalli (soda-village) in the Kálahasti zemindári. The exports of Chendragiri are chiefly grains, jaggery and timber.

Chendragiri: Properly *Chandragiri*, 'the mountain of the moon.' This is the head-quarters of the taluk, but Tirupati is a larger town. Population 4,790, of whom 4,334 are Hindus and 456 Musalmans. Union under District Boards' Act. Head-quarters of tahsildar, sub-magistrate and inspector of police. Railway station (height above sea-level, 675·29 feet); police station; post office; telegraph office at railway station. The distance from Tirupati is 7 miles, and that from Tirumala or Upper Tirupati about 6 miles. Upon the establishment of the new Law Courts in 1805, it was proposed to make this the head-quarters of the District Judge, but Chittoor was eventually selected. The present town is neatly built on the right bank of the Swarnamukhi, and to the east of the hill upon which the fort stands. The old town has mostly disappeared, and its site, which must have been extensive, has been converted into fertile fields.

Chendragiri is chiefly noted for its fort, built upon a high rounded mass of granite rising about 600 feet above the valley. A large space upon the southern side of the hill is enclosed by strong walls, surrounded by a ditch once fed by a natural spring but now almost dry. The style of architecture is very similar to that of the Vellore fort, which, like Chendragiri, was built, or more probably improved, by the Vijayanagar Rájás. The enclosure upon the plain is divided into three portions by two inner walls running

CHAP. XIX. CHENDRAGIRI. Places of interest.

north and south, and in the centre space is the palace of the rájás. There are two main zigzag entrances, one on the east and another on the west, which, as well as the walls, are more or less in ruins. Besides the mahâls there are several small temples, the ruined mud walls of the Muhammadan palace, and some mantapams. The mahâls consist of two buildings, one being the residence of the ladies, believed to be connected with the larger building by a subterranean passage. Mr. Chisholm considers the latter to represent seventeenth or early eighteenth century work, and the zenana to be of the early eighteenth century little altered. He thus describes the palace :—"The main building is about 150 feet "long. It faces south, with an imposing and well balanced facade "of three storeys. The sky line is pleasingly broken by Hindu "terminations, like the tops of gópurams, the largest surmounting "the durbar hall. This apartment measures 21 feet square. It is "surrounded by a colonnade, and rises through two storeys in such a "way that the larger quantity of light comes through the upper tier "of arches which thus forms a sort of clear storey. * * With the "exception of the angles, which are comparatively solid, each floor "consists of a pillared hall, the piers arched across both ways forming "the supports for the flat domes which ceil the square space."

The lower portion of the building is of stone, and the upper of brick in mortar with only a few pieces of wood introduced. There is a singular absence of ornament on the building, and its appearance leads irresistibly to the conclusion that it was never finished. There are innumerable stone brackets projecting from the walls, intended no doubt to receive ornament, which, as far as can be judged, was never added to them. The zenana was apparently ornamented with stucco by the Muhammadans. The palace is chiefly interesting on account of the fact that here was signed the treaty by which the site of the Presidency town was ceded to the Company. It is in good order, and is now used as a travellers' bungalow.

The hill itself, which is isolated, is encompassed by an inner and outer wall of circumvallation, built of huge granite rocks neatly fitted together. Of the two the outer is the more massive and ornamental, having an embattled wall with small projecting towers, and presenting a very pleasing effect. Where the face of the rock is so steep as to make ascent impracticable, the fortifications are discontinued. Upon the summit are the remains of a few small buildings, and a pool of water. On the eastern side, looking towards Tirumala, is an old gong stand, and upon the crest of the cliff near the holy temple is a similar one. These were erected to announce to the rájá the fact that the swámi had dined, after which he felt at liberty to partake of food himself.

CHAP. XIX. CHENDRAGIRI. — Places of interest.

An old palm-leaf book in the possession of one of the village officers of Chendragiri states that the fort was originally built in S.S. 921, or A.D. 1000, by Immidi Narasinga Yádava Ráyalu, one of the kings who reigned at Náráyanavanam. He "proceeded "to Tirupati in order to visit the god, and after accomplishing his "object, set about building palaces upon the hills parallel to Séshá-"chalaparvatam, in sight of which he always wished to dwell." The ruins of his buildings upon the Addakonda hill, including a small fort, are still in existence. He however soon abandoned this site in favour of Chendragiri. The story says that a kite carried off the rájá's red turban, taking it for a piece of raw flesh, and dropped it on Chendragiri hill. The servants who went to recover it, brought back so favourable an account of the spot that the king regarded the event in the light of an omen, and, "after building "a hill fort, as well as one on the plain, he founded a city, and "called it Chendragiri, because the moon had here done penance "to propitiate Siva."

Ten of the Yádava Rájás, according to the MSS., reigned for 314 years after Immidi Narasinga Yádava Ráyalu, and then the Vijayanagar dynasty took their place. Of these Krishnadéva Maharáyalu "sent a letter to Venkatapati Naidu, then stationed "with a force of 500 men at the gates of the fort, by the hands of "Ráchavéti Naidu and Siddappa Reddi, who were each accompanied "by 500 men. Venkatapati Naidu received the letter with great "respect, and placed the messengers in possession of the eastern and "southern gates." In this manner is the subjugation of the fortress by the Vijayanagar king described. Chendragiri became a favourite place of residence with the rájás, and here were composed among other poems the Manucharitra, Anuktamálini, Pándava-mahá Vijayam, and the Vasucharitra. The great Bráhman jester, Tennál Rámudu, was a native of this place, and his descendants still live in Chendragiri.

It was not however until after the subversion of the Vijayanagar kingdom that Chendragiri became a permanent royal residence. Venkatapatidéva Maharáyalu, who first retired to Penukonda "on "the 28th of Ávani of the year Nandana, left Penukonda and "started for Tirupati in order to visit the god. Having done so, in "order to be always within sight of the sacred hills, he stopped at "Chandragiridurgam, and as he thought that the fort, as originally "constructed by the eleven Yádavas, was not sufficiently spacious "for himself and his followers, he caused it to be extended 12,000 "yards all round, and erected a double-storeyed house. He had "57 pálaiyams subordinate to him, and departed this life on the "new moon day of Bhádrapada in the year Nandana."

CHAP. XIX.
CHENDRAGIRI.

The place was subsequently seized by the Muhammadans, who erected the trumpery mud palace now falling to decay.

Places of interest.

Upon the eastern slope of the hill is a somewhat remarkable boulder called the 'ghanta rai,' or gong-stone, which, when struck with a mallet or stone, produces a clear metallic sound.

The neighbourhood of Chendragiri is very fertile and the scenery charming. There is much to interest in the shape of deserted temples, grand old tanks, and fine carved mantapams.

Tirupati: Sometimes called LOWER TIRUPATI to distinguish it from Upper Tirupati or Tirumala, the sacred hill of pilgrimage. Tirupati is the only municipal town in the taluk. Its population numbers 14,242, consisting of 13,507 Hindus, 655 Musalmans, 74 Christians and 6 'Others.' Houses number 2,918. It is the head-quarters of a deputy tahsildar, a district munsif, a sub-registrar and police inspector. It has a police station, a post and telegraph office, two railway stations (East and West Tirupati, the height of the latter above sea-level being 514·92 feet) and an excellent hospital, maintained by the mahant, the head of the Tirupati temples. A Sanskrit college is also maintained by the mahant, and there are a number of schools supported by the municipality. The income of the municipality is between Rs. 12,000 and Rs. 14,000.

Being one of the most ancient places in the country, the town is irregularly built, with narrow and dirty streets. Its houses are peculiar in that they are generally constructed with flat terraced roofs like those of the Mysore plateau and the Deccan. Apparently the extent of Tirupati was once greater than at present, for deserted and ruined temples and mantapams are found upon its outskirts; were it not for the sanctity of the temple on the hills, the place would soon sink into insignificance, for it is from the pilgrims that the residents derive their livelihood. Large numbers of foreigners from all parts of India may always be seen in the streets, as residence on the hills is dangerous. In September the town is fullest, owing to the occurrence in that month of the Bramha-utsavam feast upon the hill. In April or May there is a feast in Lower Tirupati largely frequented by people of the district, and called the Gangajátra, the goddess being declared to be the sister of Venkatéswara, the deity of the hills. She has no temple, but in a tope on the east of the town are some stone images representing her head, which are worshipped. On the last day of the feast a figure is made of clay and straw and placed in the tope, where crowds of all castes, including Pariahs, gather and present food (pongal) to it. A number of he-buffaloes, goats, sheep and fowls are at the same time sacrificed, and it is said that Bráhmans,

Places of interest.

though they will not be present, send animals to be slaughtered. When the festivities are concluded the image is burned. During the feast, which continues ten days, the lower orders of the people paint themselves and indulge in much boisterous mirth. "In India," writes a late tahsildar, "we see nowhere so many disguised "forms in any feast. From Bráhmans downwards, without dis-"tinction of caste, most of the people have the pleasure to disguise "themselves in the forms of kings, zemindars, bairágis, &c. The "actors dress in the same valuable jewels, clothes, umbrellas, and "retinue of the people which they imitate. Those who vow to "Ganga fast ten days before the feast appears. They wear a "structure made of bamboo in the form of a car, which is adorned "with papers of different colors, and which is supported by iron "nails pressed into the belly and back, and with this structure over "their heads they play very freely. In this manner four or five "hundreds of towers are to be seen. Though nails are pierced "into the body, there is no complaint of trouble. The people who "are infected with cholera and other diseases vow to Ganga, and "observe this." The same festival is celebrated with much less display in many other places in the district, but the Tirupati feast is the most popular.

There are fifteen temples in the town, many of them very insignificant. The chief are those of Góvindarájaswámi and Rámaswámi, of which the former has an imposing gópuram. The swámi is said to be the brother of Venkatéswara, and in his honour Tirupati is sometimes called Góvindarájapatnam.

The principal water-supply of the town is derived from a bugga, or spring, at some distance from the town, from which the water is brought through pipes and received into two large stone reservoirs, which are never empty. An endowment for the upkeep of this charity is in the possession of a Bráhman called the 'Bugga mahant.' There are also some good drinking water tanks, the largest being in what is called the People's or Robinson's Park, after a late Collector, who enclosed the space and planted it with trees. The park is ornamented with many fine sculptured images, the numerous ruined temples about Tirupati having been laid under contribution.

The situation of Tirupati is pleasing. The steep cliffs of the Tirumala range look down upon it from a distance of about a mile on the north, while to the south and west innumerable hills extend one above the other to the horizon. On the east the view is more open. A pretty little waterfall, known as the Kapila tírtam, descends from the hill just north of the town, and during the rains the volume of water is not inconsiderable. There is no single fall

CHAP. XIX. CHENDRAGIRI. — Places of interest.

of any height, but a series of small ones, each with a fall of about 40 or 50 feet, the last and finest being just over a large bathing tank, one side of which is formed by the cliff, and the other three by well-dressed steps of granite leading up to corridors of stone supported upon carved pillars. It is a portion of the duty of every pilgrim to bathe in the Kapila tírtam before ascending the hills, and if he can swim, to go and sit upon a figure of Hanumán over which the water falls. During the great feast crowds frequent the place all day, and in ordinary times there are always several bathers in the morning hours.

The bazaars of Tirupati present a very busy scene. Everything that a pilgrim wants can be procured, and it is a capital place in which to pick up curiosities which have been brought down from Northern India and bartered with the merchants here.

Tirumala, or the holy hill (*tiru malai*) : This town is generally known to Europeans by the name of Upper Tirupati, and is situated upon the top of the range, and near its south-west angle, being 6 miles distant from Lower Tirupati, and about as far from Chendragiri. Population 2,712, but the number of resident inhabitants is probably much less than this. There are four principal approaches to it, two from the above-named towns, and the others from Nágapatla on the west, and Bálupalli on the east. Besides these there are numerous other pathways leading to the plateau.

The range has seven principal peaks, each of them sacred, and each bearing a separate name, accounted for by a fable. Near one of them, named Séshácbalam, stands the temple, and the whole range is often called after this particular peak. There are of course legends innumerable attached to every spot. The hills are said to have originally formed part of Mount Méru, and their change of locality to have arisen from a dispute between Ádi Sésha, the thousand-headed serpent, and Váyu, the god of the winds, as to which of them was the more powerful. To exhibit his strength Ádi Sésha lifted one of the peaks of Mount Méru upon one of his heads, but Váyu raised so terrible a tempest with his breath that the peak was blown away, and falling to the earth formed the Tirupati hills. When this occurred is unknown, but the god Venkatáchalapati is said to have taken up his abode upon the hills twenty-eight yugams before the present Kali yugam !

There are several *tirtams*, or pools of water, in various parts of the hills, all more or less sacred. The names of thirty-one can be enumerated, but the pious affirm that there are really three and a half crores of them. The chief are the Pápavinásam, Swámipushkarani, Ákásaganga, Tumbúr kóna, Pándava tírtam, Antaráganga

CHAP. XIX. CHENDRAGIRI — Places of interest.

and Gógarbha tírtam. The Swámipushkarani is a large tank, about 100 yards by 50 yards, surrounded with cut stone steps and situated close to the temple. Every pilgrim bathes in this, though the green, stagnant, odorous mass of liquid filth which it contains is most uninviting. Once a year the waters of all the principal rivers and lakes of India are asserted to unite together, and on that day the Swámipushkarani is said to be much swollen. Bathing in it at this time is held to be a sure mode of purification from sin. When low, a wall, which separates the tank into two parts, is observable dividing it into the Swámipushkarani proper and the Varáhaswámi tírtam. During the great famine the bed of the latter was cleared of silt, and nine wells, which were often spoken of, were discovered and cleaned out. The tradition that each became filled with a differently coloured deposit of silt is affirmed to have been found true.

The Pápavinásam is a waterfall and pool about 3 miles distant from the temple. It is still more morally purifying in its effects than even the Swámipushkarani. Murder, and every other sin under the sun, may be washed away by standing under the fall, which, however, reveals the extent of the bather's sinfulness, for its waters become dark and foul in proportion to the wickedness of his life. This is persistently declared to be the case even by educated Hindus, and the greatest reverence is felt for this tírtam.

The Gógarbha tírtam is chiefly remarkable for having close to it a circular stone called the 'Kshétra pála gundu,' or 'stone which protects the place.' This used originally to be kept within the temple, near the 'dhwaja stambham' or upright stone pillar before the shrine, and every night the keys of the jewel boxes were placed upon it. It used, it is said, to move about around the building for its protection, and one night it attacked and killed the son of a priest who had been accidentally locked up within the temple walls. For this it was removed to its present position, where parties are in the habit of taking solemn oaths before the stone to settle disputes. The procedure is this: after bathing in the pool, the witness marches to the stone in his wet clothes, with garlands round his neck, touches it, and then swears by the Tirupati swámi. For this a fee of Rs. 7 is payable to the temple, and none are said to be so daring as to tell a falsehood under the ordeal. Many suits in the Tirupati munsif's court are settled in this manner.

The Tumbúr kóna is a very interesting waterfall, in the east of the hills, most easily approached from Mámandúr. Here a cañon about a quarter of a mile long occurs, into which the water-

CHAP. XIX. CHENDRAGIRI — Places of interest.

precipitates itself, and then flows along a smooth granite bed, with some extraordinarily deep circular pools, at intervals, full of fish. The vegetation near the mouth of the entrance to the cañon is very dense, and the scenery charming. Here many rishis used, it is said, in ancient times to live, for which reason the place is sacred. It is now a favourite haunt for tigers and other wild beasts. At one spot is found a cave, probably hollowed out by some of the rishis of past years, which is believed by the natives to lead to a passage conducting to the temple, but as no one is permitted to enter, this point cannot be settled by trial. Another similar opening occurs on the western wall of the colonnade at the Kapila tírtam near Lower Tirupati, by means of which Tondaimán Chakravarti is said to have been accustomed to ascend to the temple. The passage however only reaches for a few yards.

Pathways lead from the town of Tirumala to all of the holy pools. They are generally paved with flat stones, many of which bear rudely cut inscriptions, in various languages, to the effect that a certain person came and visited the swámi. Others have figures representing the pilgrim and his family in the act of prostration. The principal approaches to the town have their pavements almost entirely covered in this way, the idea being that if the dust from a really pious man's foot should chance to fall upon the name or figure, the salvation of the person represented or named is assured. A few stone masons still earn a livelihood by cutting the flag stones for pilgrims.

The most frequented road to the temple is that from Lower Tirupati. All classes may go as far as a large gópuram, which is called Alipiri, but beyond this none but caste men can proceed. European officers, however, now pass Alipiri and visit Tirumala, but the desecration of the place by their visits has to be removed by the expenditure of Rs. 105 in various sampróshnas, which consist in bathing the idol with milk, oil, &c., and offering it food. At Alipiri begins a long flight of stone steps which leads up through a gap in the cliff. The ascent is not very steep, and must be nearly a mile in length. It passes under several small mantapams and terminates at the Gáli gópuram, or 'wind tower,' perched upon the top of the cliff, and deriving its name from its exposed position. A long walk of 5 miles over hill and dale, along a roughly paved pathway, ornamented at intervals with crumbling and half-ruined gópurams, brings the pilgrim to Tirumala. The second approach is from Chendragiri. A good road of about 5 miles leads to the foot of the hills, and an extremely steep path conducts to the plateau. The steps here are much rougher than those on the Tirupati side, and palanquins cannot be used, as they can when travelling up from Tirupati. The Chendragiri path brings the

pilgrim to the summit, within half a mile's distance from the temple.

Places of interest.

The town is a most disappointing sight, squalid, mean, and ill-built. It is constructed in the shape of a parallelogram, the four streets running at right angles around the temple, the Swámipushkarani, and the shrine of Varáhaswámi. The latter was the original deity of the hills, and when Venkatéswara came to settle there, he raised objections, but was pacified by a promise that all pilgrims should first pay their respects to him. Every one therefore, after bathing, first offers devotion at this swámi's mean little shrine, on the banks of the Swámipushkarani, and then proceeding to the temple of the usurper, worships there. Most of the buildings are choultries, some of modern construction, built by the Rájás of Mysore and Cochin and the zemindars of Kálahasti, Venkatagiri, and others ; but the majority are in the shape of long stone corridors skirting the streets and rudely carved. Opposite to the temple are several shops, where brass ware, wooden images, food, and other articles are exposed for sale. A monastery, belonging to the mahant, stands on some rising ground, where bairágis are fed. It is a very unimposing building ; indeed the only structure really deserving notice is the thousand-pillared mantapam on the skirts of the town which, though it cannot be compared favourably with similar mantapams in other large temples of Southern India, is a fine specimen of native architecture : an extensive hall, supported upon more than a thousand stone pillars, those facing outwards sculptured somewhat elaborately with figures of mounted griffins or horses, and the inner ones of the usual kind, with small carving in relief upon them. It is clear that this mantapam was of much later date than the temple, as the workmanship is of a higher order. It had partially fallen into ruin, but nearly a lakh of rupees was allotted for its restoration, a work which has been satisfactorily accomplished in spite of difficulties. At one of the corners of the street which runs round the temple is a somewhat remarkable piece of stonework, attributed to Chandra Chóla Rájá. It presents the appearance of a lofty mantapam of stone, but the upper portions of stone wheels just appear above the ground, and the structure is in reality a stone car, which, the priests say, used once to be dragged around the town. It is impossible to imagine that any thing so heavy could ever have been moved at all, or, if moved, that it would have continued in a state of equilibrium, since the stones composing it are uncemented together.

Around the town is a belt of orchards containing mango, jack, tamarind, orange, sandal, champak, and other trees planted by the pious for the use of the temple. A few bairágis tend the trees and

CHAP. XIX. CHENDRAGIRI. Places of interest.

flowering shrubs, sending the fruit and blossoms daily to the swámi.

But little can be seen of the temple from the outside, and no European has yet been allowed to enter its gate. It is surrounded by three stone walls, the outer one being built of well dressed granite blocks, upon which are cut long inscriptions. Rising in the centre of the enclosed space is seen a rather insignificant dome, once gilded, but now much the worse for wear. A poor gópuram surmounts the entrance into the enclosure. This was almost in ruins, but was repaired some years ago, when several pots of ancient gold coins were found buried at its base. The size of the outer enclosure is 137 yards by 87 yards, but the shrine from the descriptions given of it must be of mean proportions. It has a small chamber, lighted only by lamps, containing the idol, a standing representation of Vishnu in stone, 7 feet in height. There are four arms to the idol; one of the right hands holds the chakram or mace of war, and one of the left the chank or holy shell. The other right hand points to the earth, to draw attention to the miraculous origin of the holy hill, while a lotus is grasped in the remaining left hand. The divinity is said to have a thousand and eight names, the chief of which are Srínivásaswámi, Venkatáchalapati, Venkatéswaraswámi and Sésháchalapati; but Hindus from Bengal call him Báláji.

There can be no reasonable doubt that originally the idol was worshipped as Siva. This is denied by none, and the story goes that Rámánujáchári, asserting that it was all a mistake, and that the swámi was Vishnu, procured a chank and a chakram of gold, which he placed before the image and closed the temple doors. When they were next day opened these ensigns were found grasped in the idol's hands, which was regarded as a proof that he was Vishnu. The chank and chakram are not portions of the stone image, but are made of gold, and fitted upon the two hands which point upwards. The arrangement of the hair as a 'jata' or tangled mass, the cobras carved upon the body, and various other peculiarities, prove that Siva was intended to be represented; and the priests, who are Díkshitars, say that they are Saivites, though they wear the námam. Probably the swámi, who has no consort on the hill, was the bachelor Subramaniaswámi.

The temple is said to have been built at the commencement of the Kali yuga, or B.C. 3100, when it was prophesied that worship would continue for only 5,000 years, and that the end would be foreshadowed by a gradual decrease in the receipts from votaries. Only six years remain to complete this period, and, if the temple authorities are correct, the revenues show a steady decrease.

Places of interest.

A record is preserved in the temple of the benefactions of various kings. The earliest entry states that the second enclosing wall was built by Parikshatu Mahárájá, and the next that his son Janaméjaya built the outermost wall. Vikramárka Mahárájá is described as having made several improvements six centuries later, but the building of the temple is by all attributed to Tondaimán Chakravarti 'who lived near Kálahasti.' A village called Tondaimandalam still exists not far from that town. The Brahmánda Purána also points to the Chóla king as the founder of the temple. It describes a conversation between Nárada Mahámuni and the supreme deity, in which the former said that the most delightful spot on earth was situated "2,000 miles south of the "Ganges and 50 miles west of the Eastern Ocean," meaning to describe Tirupati. Then the God said: "In Kali yuga I am going "to be greatly worshipped by Chakravarti, the son of the Chóla "rájá, and placed by him in that spot." We may therefore safely conclude that Tirupati has no claim to a greater antiquity than many other temples in the district.

In front of the holy of holies is an anteroom, and in front of this a mantapam supported on stone pillars, in the middle of which is placed a brass vessel in which hangs a bag open at the bottom and suspended from the roof. Into this money and jewels are thrown. On either side of it hangs a gong; that on the left side, when struck, is said to utter distinctly the name 'Góvindá,' while its companion on the right articulates as clearly the word 'Náráyaná.'

During the time of the Muhammadans, and probably under the Hindu Governments as well, the revenues of the temple were all paid to the ruling power of the country. The Bráhmans however assert that this was an innovation introduced by the Muhammadans, but one of their own fables does not support them. This states that the swámi fell deeply in love with Padmávati, the daughter of Ákásarázu of Náráyanavanam. Being poor, he applied to Kubéra, the god of wealth, for the money necessary to defray his marriage expenses, and received 11,400,000 Ráma tankees (equivalent to twenty or twenty-five millions sterling) upon a bond attested by Íswara, Bramha, and Aswastan, in which he engaged to repay the loan to the sovereigns who happened to rule between the Pálár and the Swarnamukhi. To enable him to fulfil this engagement he received gifts from his votaries. During the first six years of British rule the average nett annual revenue from Tirupati was upwards of two lakhs. In 1843 Government relinquished this source of revenue. The amount had been steadily decreasing, and the average of the last six years was less than one

CHAP. XIX. CHENDRAGIRI — Places of interest.

lakh. It is difficult to obtain any trustworthy information as to the present income, but it is probably not less than three lakhs. The recent disputes have, however, affected the receipts from offerings of pilgrims.

Sickness and the desire of male offspring are the chief causes which induce persons to make a vow to the Tirupati idol. When the object is attained the vow must be fulfilled at some time, but not necessarily at once. Death only transfers the liability to the surviving heir, and it is said that the idol is never defrauded. There are among Bráhmans and other castes, families who are known as 'Tirupati dongalu' or Tirupati thieves. None of these will venture even to ascend the hill, and it seems probable, though they pretend not to know the reason of their name, that their ancestors defrauded the swámi by the non-fulfilment of some vow. A very common oblation by women is the hair of their heads, and there is a spot near the large mantapam where barbers shave these votaries, and the hair forms an enormous pile. More than half the women who return from visiting the shrine appear with clean shaven heads. The more wealthy give jewels and money, which should be presented in person, unless sickness or extreme distance renders the journey difficult. To receive the oblations in such cases, and to conduct pilgrim bands from a distance, gósains are appointed in the north of India, and provided with a sacred banner. This they expose some months before the Tirupati festival, and crowds of those desirous to attend gather round it, while persons who are unable to undertake the journey entrust the gósain with their gift. When the time to begin the journey has arrived, the procession starts, the flag going before. Such parties may be seen all over India, the leader every now and then raising the peculiar cry of 'Go-o-o-o-vindá,' which is caught up by his enthusiastic followers. In such veneration is the hill held by foreigners, that upon obtaining the first glimpse of it they prostrate themselves to the ground.

In order to encourage liberality, complimentary presents are given in return for oblations which amount to Rs. 100 and upwards. The presents take the form of turbans and shawls, which are greatly esteemed. Where it is desired to give something which the swámi should retain, such as jewels, a palanquin, or an elephant, it is usual to exact its value in money as well; a custom which originated from the circumstance that the Government of the country received the temple revenues.

There are three authorities on the establishment of the temple the two jiyengárs and the mahant. Of these the big and the little jiyengár are the most holy, and regarded almost in the light of

divinities. They are the religious heads, and are supposed to be absorbed in meditation and devotion when they are not superintending the worship. The mahant is the secular head, and looks after the worldly affairs of the swámi. He is always a northern Bráhman surrounded by a crowd of bairágis, one of whom he nominates, during his lifetime, to be his successor. The importance of this office has greatly increased since 1843. Up to that date Government interfered with every detail of management, regulated the funds, superintended repairs, kept the cars and images in order, and investigated disputes even of a religious character; indeed there was nothing connected with the temple which was not the subject of report, except the daily worship. There was the strongest opposition among the people when it was proposed to withdraw from this, and all sorts of evils were prophesied, which have indeed come to pass. After some discussion the mahant was appointed sole trustee, and he therefore became a most important personage.

The state of morality among priests and pilgrims is also alleged not to be what it was. Tirupati, unlike most other temples, has no dancing girls attached to it, and not to be strictly continent upon the hills is a deadly sin. Of late years, however, even celibate bairágis and priests take their paramours up with them, and the pilgrims follow suit. Everything is held to betoken the approaching downfall of the temple's greatness. The irregular life of the mahant Balarám Dás sixty years ago caused a great ferment, though similar conduct now would probably hardly attract notice. He was ejected from his office by the unanimous voice of his disciples, and one Góvardhan Dás, whose life was consistent with the holy office, was elected and installed in the math near the temple. Balarám Dás, however, collected a body of disbanded peons from the pálaiyams, and arming them, made an attack upon the building. The walls were scaled, and the new mahant with his disciples shut themselves up in an inner apartment. In an attempt at rescue one man was killed and three seriously wounded. A police force was sent to co-operate with the Tirupati poligars, but could effect nothing until the insurgent peons were threatened with the loss of all their lands. This broke up the band and Balarám Dás' followers deserted him. When the gates were broken open it was found that he and a few staunch followers had committed suicide. But perhaps the greatest scandal which has occurred in the history of the math was that which ended in the conviction of the present mahant's predecessor, Bhagaván Dás. He was charged with having misappropriated a number of gold coins of considerable value, which were supposed to have been buried beneath the great flagstaff. A search warrant was granted and it

CHAP. XIX. CHENDRAGIRI — Places of interest.

was discovered that the buried vessels contained only copper coins. The mahant was convicted of the misappropriation of the gold and was sentenced to two years' rigorous imprisonment, but this was reduced to one year by the High Court. On being released from jail he made an effort to oust his successor and acquire possession of the math by force. For this he was again sent to jail (for six months) and required to furnish security to be of good behaviour. There is still much ill-feeling and friction between the various parties.

The principal feast at Tirumala is the Bramha-utsavam, in which the marriage of the swámi with Padmávati is celebrated in September or October. Beginning on the first day of Áswíjasuddha, it lasts for ten days, and two-thirds of the year's income is realized from the crowds who attend. The numbers are greatest from the third to the seventh day, and when, upon the ninth day, the car has completed its circuit round the town, the people begin to disperse. The most popular procession is the Garuda-utsavam on the fifth day, when a representation of the idol is carried round, mounted upon a figure like a kite. Both Vaishnavites and Saivaites flock to this, and merchants drive a very brisk trade. The feast is particularly popular among the Mahráttas and Gujarátis of Bombay, since their chief festival is the Navarátri, the last day of which, called the Dassera, falls within the period of the Tirupati utsavam. The merchants of Guzerát are said to lay by a percentage of their profits, and to remit it to Tirupati every year. There are several other periodical feasts, the chief of which are the Sivarátri, the Mukkóti-utsavam, and the Radha-Saptami.

Kallúr: This *pálaiyam* is situated in the north-west corner of the taluk and contains 94 villages, with a population of 6,783. The land revenue is returned as Rs. 18,658, and the *peshkash* payable to Government is Rs. 4,040. The area is approximately 31,500 acres, of which about 6,000 acres are under cultivation. The present poligar is named Ahóbalarázu; he belongs to the Ékari caste. This *pálaiyam* was formerly of some importance, as the well-known Dámalcheruvu or Kallúr pass lies in it, and this was one of the chief routes between the Deccan and the Carnatic.

Kallúr: Village; head-quarters of the Kallúr poligar. Its full name is Kallúr Bhákarapet. Population 986, of whom 637 are Hindus and 349 Musalmans. Local Fund travellers' bungalow. Police station.

Pulicherla: This *pálaiyam* is situated in the north-west of the taluk, to the east of the Kallúr *pálaiyam*. It contains 63 villages, and has a population of 10,419. The total *peshkash* payable is Rs. 5,005; but a portion of the estate has lately been sold in satisfaction of a mortgage, and the peshkash payable on the portion left with

CHAP. XIX. CHENDRAGIRI — Places of interest.

the poligar is Rs. 3,020. The land revenue of this portion amounts to about Rs. 15,500 and his income from other sources is about Rs. 1,000. The debts still due by the estate amount to nearly Rs. 35,000. The present poligar is Venkata Chendrappa Naidu, of the Ékari caste. He is a minor and his estate is under the management of the Court of Wards.

Mangalapenta: Village in the Pulicherla *pálaiyam*. Population 867, consisting of 708 Hindus and 159 Musalmans. Station on the Villupuram-Guntakal railway, which runs up the Mangalapenta pass. Police station.

Karakambádi: This *pálaiyam* is situated in the north-west of the taluk and is about 48 square miles in extent. The greater part of it is hilly and picturesque and covered with forests. These forests are about 40 square miles in area, and, besides timber, yield a considerable quantity of minor produce, such as bark, honey, wax, &c. The area under cultivation is about 4,000 acres, of which 1,365 acres are irrigated. The average rates of assessment are said to be Rs. 1–4–0 per acre for dry lands and Rs. 3–9–0 for wet. According to the local tradition, the *pálaiyam* was granted to an ancestor of the late poligar, some six centuries ago, by a Rájá of Ánegundi, on the condition that he should clear the forest, establish villages and maintain a body of kávalgárs or police. The *pálaiyam* was subsequently split into two, the present Karakambádi and Krishnápuram *pálaiyams*. In 1759 the then poligar of Karakambádi, having assisted a Mahrátta force to seize the Tirupati pagoda, was attacked by the British troops. He himself was killed and the village of Karakambádi was sacked and burned. Some time ago the poligar, having become involved in debt, sold his pálaiyam to the present holder, Damara Ráma Náráyanivàru of the Kálahasti family, for Rs. 89,500. Upon the organization of the police force, the old *kávali* service was dispensed with, and a quit-rent was fixed on the kattubadi inám lands granted for that service. The village of Karakambádi has a population of 2,147.

Krishnápuram: This *pálaiyam*, as explained above, once formed part of the Karakambádi *pálaiyam* and the poligars belonged to the same family. Its area is about 60 square miles, of which 50 square miles are forest. The land in cultivation amounts to 2,750 acres, of which 847 acres are irrigated. The average rates of assessment are Rs. 1–4–0 for dry lands and Rs. 3–9–0 for wet. On the death of the last poligar of the old family, the *pálaiyam* passed to his widow, by whom it was sold for Rs. 33,000 to Damara Ráma Náráyanivàru, the purchaser of the Karakambádi *pálaiyam*. The village of Krishnápuram has a population of 748.

Mogarála: Village; formerly head-quarters of *pálaiyam* of same name. Population 1,412, of whom 1,364 are Hindus.

The Mogarála poligar was one of the most active in the rebellion of 1803–5, and he appears to have also led away his ward and relative, the poligar of Pákála. He eventually surrendered himself to Colonel Munro, the Collector of Cuddapah, and his *pálaiyam* was forfeited. The peshkash fixed for the *pálaiyam* by Mr. Stratton was Rs. 24,500, but there can be little doubt that this sum was based upon an extravagant estimate of the resources of the estate.

Pákála: Village; formerly head-quarters of *pálaiyam* of same name. Population 5,192, of whom 4,970 are Hindus. Pákála is now an important junction of the South Indian Railway and promises to become a town of some size. Its height above sea-level is 1,208·29 feet. The Pákála *pálaiyam* was attached in 1803, and finally resumed in 1805, for rebellion. The *peshkash* fixed for this *pálaiyam* by Mr. Stratton was Rs. 21,000.

Agarála: Village; population 497. Noted for its wood-carving. The wood used is the red sanders (*Pterocarpus santalinus*), and the images are usually those of the Hindu deities. The workmanship is rough but effective, and the prices are moderate.

Aitepalli or *Aiyattapalli*: Village; population 1,497. Both limestone and iron sand are obtained here. The iron is smelted and made into plates for ploughshares.

Dámalcheruvu is a large village on the south-west of the taluk, and at the mouth of the valley which leads to the Kallúr ghát. It is prettily situated among lofty granite hills well clothed with low jungle. Its large tank (whence the name) is fed from a rough anicut built across the stream, and irrigates a large extent of land. A considerable trade is carried on in the village, which has a population of 3,581.

Two miles to the north of Dámalcheruvu was fought in 1740, the battle between the Mahráttás and the Nabob Dost Ali. At this spot a peculiar earthen embankment crosses the road and continues over the hills on either side. It is said to extend to Tirupati on the one side, and to Yélagiri, in Salem, on the other, and to have been built long ago by two neighbouring kings to mark the boundaries of their realms.

Gázulamandem: Village; population 2,387. There is a considerable manufacture of glass beads here. The glass is obtained from the Kálahasti zemindári.

Jípálem: Village; population 335. Culinary vessels are made here out of red sanders.

Mallavaram: Village in Krishnápuram *pálaiyam*; population 979. Brass vessels and plates are made here.

Mámandúr: Village; population 290. A sandstone called *Gandhapusána rái* is quarried here. It is used for making stones

for grinding sandal-wood into powder. Station on Madras Railway, north-west line: there is a forest bungalow here.

CHAP. XIX. CHENDRAGIRI — Places of interest.

Panappákkam or *Panapák*: Village; population 2,465. Railway station on Pákála-Tirupati line. Police station. Forest bungalow available for travellers. Roads to Chendragiri, Dámalcheruvu and Chittoor.

Rénigunta: An important junction where the Nellore-Tirupati line crosses the Madras Railway. Population 781, of whom 583 are Hindus, 57 Musalmans and 141 Christians. It is a Union under the District Boards Act, and an Apothecary of the Railway Company resides there. The want of a satisfactory supply of drinking water is much felt. The distance from Madras is 83¾ miles, and the height of the station above sea-level is 369 feet. Police station; post office; telegraph office at Railway station.

Tiruc'chánúr: Population 1,786; police station; several chatrams. This village is situated 3 miles from Lower Tirupati, and upon the northern bank of the Swarnamukhi. But little trade or manufacture is carried on in the place, which is only celebrated for its temple dedicated to Alamélu Mangamma (a name of Lakshmi), the wife of the Tirupati swámi, after whom the village is sometimes called Alamélu-mangápuram. The more common name is a contraction of Tirusukhanúr, or the village of the holy Sukha, and commemorates the fact that Sukha Maha-rishi, a celebrated ascetic, did penance here on the bank of the river.

The local tradition states that Lakshmi, being displeased with Vishnu, left him and concealed herself in the infernal regions. He visited the earth in search of her, and meeting with Padmávati, daughter of Ákásarázu of Náráyanavanam, married her as already described. He still however pined for Lakshmi, and at length, by excavating a tank with his chakram on the banks of the Swarnamukhi, and doing penance there for twelve years without taking food, induced her to ascend out of the waters of the pool through a lotus flower. She was still unwilling to accompany her spouse to the Tirupati hills, and settled at Tiruc'chánúr, where all pilgrims who ascend the hills pay her a visit. The tank is considered very holy, and receives a constant supply of water from the river on one side, while it discharges its surplus on the other.

CHITTOOR TALUK.

CHAP. XIX. CHITTOOR. General description. CHITTOOR is the most central taluk in the district, and is bounded on the north by Chendragiri; on the east by Kárvetnagar, and part of Wálájá; on the south by Gudiyáttam; and on the west by Palmanér and Punganúr. Its length from north to south is about 30 miles, and its breadth about 25 miles. Its area is 793 square miles, but this includes the area of the pálaiyams of Náraganti, Bangári, Gudipáti and Tumba.

Hills. The physical aspect of the taluk is that of a plain, broken by an infinite number of naked rocky hills, which rise abruptly, and are difficult of access, being covered with enormous granite boulders. The plain of the north, out of which these hills rise, is fairly level, but in the south there is a fall of some 500 feet to the level of the Pálár river. The elevation of Chittoor itself is about 1,000 feet above the sea. The Eastern Ghauts run along the western boundary of the taluk, separating it from Punganúr and Palmanér.

Rivers. The formation of the country is such as naturally to produce an immense number of jungle streams, which eventually form four principal rivers, called the Chittoor, Venkatagiri, Aragonda and Airála rivers. These generally flow eastwards, where the Ponné, passing southwards, intercepts them and receives their waters, after which it forms the boundary between Chittoor and Wálájá. All these rivers have sandy beds, which only contain water during the rainy season, but then they are at times impassable torrents.

Soil. The soil is good, being generally a red clay mixed with sand and fertilized by the vegetable matter and rocky detritus carried down from the hills. These are covered with a scanty scrub jungle, affording abundance of leaf manure, and with coarse grasses, upon which many cattle graze.

Forests. The area of the Government forests is about 63,000 acres, and there is a not inconsiderable extent in the *pálaiyams*. The jungles are not continuous, but scattered about among the hills, the most wooded portions being in the neighbourhood of Airála, Pennamari, Gundlapalli, Paradarámi, Chittapára and Venkatagiri, the last being in the Bangári pálaiyam. The trees are small, though large enough for agricultural implements, and afford an ample supply of firewood. In some parts numbers of tamarind trees grow, and their fruit is largely exported. Near Chittapára, Venkatagiri and Tumba a great deal of bamboo is found. Many of the Chittoor villagers thoroughly appreciate the value of their local jungles, and used to make arrangements for their conservation before the introduction of the Forest Act.

Fauna.

Being so hilly, the taluk is infested with all the usual wild beasts except bison and elephant. Cheetahs play sad havoc among the village herds, but are very difficult to get at, though daily heard of. Tigers are occasionally found in the jungles at the foot of the gháts, and wild pigs are common in the same neighbourhood. With feathered game the taluk is less plentifully stocked, but peacock, rock-pigeon, jungle fowl, and the like are to be got, and in the season numbers of teal and snipe frequent the numerous tanks.

Climate.

The taluk is a somewhat feverish one, malarial fever of a bad type being especially prevalent in the villages at the foot of the gháts. Chittoor itself appears to be liable to fever-waves, the causes of which are obscure. The temperature is fairly high in April and May, and September is of the usual close and muggy character, but the cold weather is very enjoyable. The normal annual rainfall is about 40 inches.

Communications.

The taluk is traversed from south to north by the Villupuram-Guntakal railway, which has stations at Rámápuram, Chittoor and Pútalapattu. The total length of roads in the taluk is 182 miles, the most important being those from Chittoor to Vellore, Palmanér and Dámalcheruvu, all of which are main trunk lines. Other roads are those from Chittoor to Gudiyáttam *viâ* Paradarámi, from Chittoor to Ranipet *viâ* Ponné anicut, from Chittoor to Airála, from Chittoor to Penumúr or Penumari, and from Chittoor to Pallipat in the Kárvetnagar zemindári.

Administration.

The taluk is in the head-quarter division and is usually in charge of a Deputy Collector. The chief local revenue officer is the tahsildar (salary Rs. 175). He is also a magistrate, but the greater part of the magisterial work is done by the stationary sub-magistrate at Chittoor. The taluk forms a single police division under an inspector, and is divided into nine police station charges. In respect to civil actions it is situated within the jurisdiction of the district munsif of Chittoor. The number of villages, including the town of Chittoor, is 373, of which 337 are inhabited. Of the former number 140 are Government villages, 210 are situated in the pálaiyams, and 23 are inám or shrotriem villages.

Population.

The population in 1891 was 200,249, of whom 101,969 were males and 98,280 females. The population of the Government villages is 155,396. Hindus number 193,278, Musalmans 6,114 and Christians 852. The population has increased by 16·49 per cent. since 1881, and there are now 253 persons to the square mile. The number of occupied houses is 37,097, and there are on an average 5·40 inmates to each house. Of the male population 87·67 per cent. are illiterate, 9·80 per cent. can read and write, and 2·53 per cent. are learning. Of the females 99·49 per cent. are illiterate.

CHAP. XIX. CHITTOOR.

Telugu is the mother-tongue of 116,532 persons, Tamil that of 75,232 and Hindustani that of 6,038. Classified by means of subsistence the population consists of 136,954 landholders and tenants, 17,837 agricultural labourers, 11,243 general labourers, 8,756 traders, 2,017 weavers, 6,856 other artisans and 16,586 'Others.'

The land.

The area of *ryotwári* land in the taluk is 300,500 acres, that of *minor ináms* is 18,381, and that of *whole inám* villages 12,333 acres. Of the ryotwári land about 64,500 acres are under forest, and 100,200 acres are not available for cultivation. Of the remainder, 88,200 acres are in occupation, and the area available for extension of cultivation is thus 47,600 acres. The area cropped in 1892–93 was 78,000 acres of ryotwári land, and 14,000 acres of minor inám, or about 0·59 of an acre per head of the population of Government villages. Including the area cropped more than once the extent was 119,800 acres. Rice is the principal crop and is grown on nearly 35,900 acres in Government villages. There are nearly 6,500 acres under oil-seeds, over 1,200 acres under condiments and spices, and 1,430 acres under sugarcane. Ragi, cholum and cumbu are the principal dry crops. Of the total area of ryotwári holdings in fasli 1302 the dry lands comprised 57,900 acres and the wet or irrigated lands 20,200 acres. The average assessment was Rs. 1–1–7 for dry and Rs. 6–6–10 for wet, or Rs. 2–7–7 for all lands taken together. There were in that year 15,625 single and 10,001 joint pattás, and 12,493 of the former and 6,684 of the latter were for sums below Rs. 10. The normal land revenue of the taluk, excluding the peshkash of the pálaiyams, is Rs. 2,35,000 and the cesses charged on land revenue amount to Rs. 36,000.

The principal irrigation is from tanks. As the valleys are small, no single reservoir is of any great size. Half a dozen villages in the east are fed from the Ponné anicut, and small dams or *kondams* irrigate as many more in other parts of the taluk. There are altogether 533 tanks, 142 river channels and 94 spring channels, besides 14 private tanks and 2 private springs. There are also 14,466 wells, of which 4,197 are used to supplement other sources of irrigation. The total area irrigated in 1892–93 was 64,600 acres, but if the area cropped more than once be included again for each crop, the area irrigated was about 92,100 acres. The agricultural stock in the Government villages is as shown in the marginal table. Interpreting ploughing cattle to mean bulls, bullocks and male buffaloes, there is one pair to every 4·87 acres in occupation, the district average being one pair to 5·45 acres; there are 100 cows

Bulls and bullocks	42,190
Cows	29,455
Male buffaloes	1,593
Cow buffaloes	6,919
Young stock	40,801
Sheep	98,657
Goats	37,323
Ploughs	19,926
Carts	3,990

and cow buffaloes to every 23 inhabitants, against a district average of 19; and there are 128 sheep and goats to each hundred acres in occupation, the average for the district as a whole being 83.

Products.

The mineral products of the taluk are the ordinary ones, iron, lime, and building stone, and, in addition, a soft sort of soapstone called 'ballapa rai,' found near Narasingaráyanipet, and formed into cups and kitchen utensils, much appreciated by Bráhmans, in the villages of Kalijavídu, Mukkanapalli, and Gangádharanellúr. The iron was once largely utilized and smelted in the villages of Putramaddi, Vírasettipalli, and Ic'chinéri, but of late years the industry has greatly declined. Weaving is carried on in a few villages. In Græmespet and Santapet, suburbs of Chittoor, the fabrics made are of a superior quality, but elsewhere only the common kinds of cloth are woven.

Chittoor (*chit*, wisdom, *úr*, village, or *chiru*, small and *úr*, village): population 9,965, of whom 8,091 are Hindus, 1,735 Musalmans and 139 Christians. Post and telegraph office; railway station; police station; travellers' bungalow; several chatrams. Chittoor is the head-quarters not only of the taluk but of the district, although it is byno means the most considerable town in North Arcot. It was chosen as the Collector's residence not merely on account of its central position among the taluks north of the Pálár, but because it was close to the estates of the principal poligars, whose lawless conduct caused the Government some anxiety. These have, however, long ceased to be troublesome, and it has more than once been proposed to transfer the district head-quarters to Vellore, the chief town in the district. Besides the Collector, the District Judge, the Superintendent of Police, the Civil Surgeon, Assistant Collector, Head-quarter Deputy Collector, Treasury Deputy Collector, District Munsif and District Registrar live in the station. It is situated upon the southern bank of the river, and in a valley shut in by high hills, which, absorbing much heat during the day, radiate it at night, and thus raise the temperature to an uncomfortable height in the hot season. In the cold weather, owing to its elevation (990 feet above the sea) Chittoor is a rather cool place.

Besides the public offices the town possesses an English church, a native mission chapel, and a Roman Catholic chapel. On the west stands the small square fort, the ditch of which has been converted into paddy-fields, and the walls of which were destroyed in 1801. Within the fort enclosure are the Civil and Police dispensaries, the former a very commodious building. The fort was the residence of the Chittoor Jágírdár, to whom the poligars were subordinate.

There is not much of interest in the town. The soil has been found particularly suitable for the cultivation of the mango, and

CHAP. XIX.
CHITTOOR.

Places of interest.

many topes of grafted trees have been planted on the outskirts of the place. Large quantities of the fruit, which is famous, are exported to Madras and other places, and the topes give Chittoor a well-wooded appearance. Sericulture was started some fifty years ago by a missionary, Mr. Norris Groves, but it soon died a natural death, and the mulberry trees are now extinct. The scenery of the neighbourhood is very pleasing. On all sides ranges of hills are seen to rise as far as the eye can reach. The shapes of some are very fantastic, and the prospect in every direction is very picturesque. A magnificent view may be had from the summit of one of the highest hills, called Chase's Folly, to which a bridle-path, built by a late judge after whom the hill is named, leads. Several miles of road have been formed between the hills by convict labour, making pleasant drives for the residents, and from the town excellent roads branch to all parts of the district.

The native town includes several villages, which have coalesced, and are known under the general name of Chittoor. Upon the opposite bank of the river is a considerable suburb called SANTAPET, and about a mile to the west has risen a modern village, GRÆMESPET (population 2,200), around the Collector's cutcherry, which was built in the time of Mr. Græme. KATTAMANCHI (population 1,278) is a suburb on the north, irrigated by a large tank lying close to the European residences.

Vélkúr or *Vélukúr*: Population 1,084; is a village not far from Chittoor on the east. It is reputed to have once been a large city in the time of Janaméjaya Mahárájá. He was a great admirer of Márkandéya Maharishi, to whom he dedicated a temple still standing. These facts are recorded in an inscription upon a stone near the village. Vélkúr is now only remarkable for its extensive mango topes, but it once contained a thousand houses, and was therefore called in Sanskrit *Sahasrapuram*, which, translated into Telugu, becomes Vélkúr (*véyi*, a thousand, *illu*, a house, and *úr*, village). North-east of the village and upon the opposite bank of the river, a large number of ancient stone circles have been found and most of them rifled.

Paradarámi: Population 1,736; police station. This is a considerable village 14 miles south-west of Chittoor on the road to Gudiyáttam. It is chiefly an agricultural village, situated among hills, and surrounded by a good deal of jungle. Some trade is carried on in grain, jaggery and ghee. It was the head-quarters of the old Yedaragunta-*pálaiyam*.

Venkatagiri: Population 590. This is the chief village in the Bangári pálaiyam, situated about 12 miles from Chittoor, on the road to Palmanér. It boasts a pagoda and a fine chatram, and has a post office, police station and travellers' bungalow.

Places of interest.

Bangári pálaiyam is situated to the west of Chittoor, and is 153,892 acres in extent. It contains 113 villages, with a population of 14,492. The area under cultivation is only 6,600 acres. The land revenue is about Rs. 48,000, and there is an income of about Rs. 4,000 from the forest lands. The peshkash payable to Government is Rs. 11,648, and the cesses amount to Rs. 2,258. The present poligar, who is of the Ékari caste, is Shéshama Náyaniváru.

Mogili or *Muglee:* Population 181. This is one of the most sacred places in the taluk, though in other respects it is unimportant. Méghalu in Telugu means clouds, and here, the legend states, Indra obtained from Siva the privilege of having the clouds as his vehicle. Siva therefore is worshipped under the title of Abbréswara, the Sanskrit form of Mogiléswara, or 'Lord of the skies.' The original village was called Mogiliváripalli, about half a mile from the present settlement, and was inhabited by shepherds. One of them, Mogilappa, tended a cow which never gave milk in the evening, and to discover the cause he followed the animal. It led him to a cave which it entered, followed by the shepherd, who, holding by its tail, passed an unfathomable pool of water and found himself in a mantapam within an extensive grotto. Here he saw Párvati milk his master's cow, and being too astonished to retreat with the animal, was surprised by the goddess. To her he described his master's anger at the cow's giving no milk, and thus explained his presence. Párvati sympathised with him, and told him to wish for something. He wished for a good meal, and immediately got a most sumptuous one, which delighted him so much that he asked how he might get the same again. She then told him that he had only to wish and to get it, and making him close his eyes, transported him to his village, first however enjoining him to secrecy on pain of having his head split open. At the spot to which he was transported a spring from that day began to well up, and Mogilappa used it to water his cattle. One day, when digging a hollow in the ground, he found a lingam, but not knowing what it was he cast it aside. Being blessed with the wonderful gift granted to him by Párvati, Mogilappa never fed at home upon the coarse food his wife was able to provide, and she seeing him daily grow stouter marvelled at the phenomenon, and pestered him to reveal its cause. He told her of the penalty of telling the story, but wearied by her solicitations, he at length agreed to sacrifice himself in order to satisfy her, and told the tale. His head split open and his wife committed sati. Some years after this catastrophe a band of pepper merchants camped at the spot, and finding the lingam which Mogilappa had thrown there, used it as a hearth for their fire. This pained Siva's head, and

CHAP. XIX. CHITTOOR. Places of interest.

the swámi appeared before the traders, in the guise of a poor Bráhman, to ask for a few grains of pepper to cure his headache. Out of pure laziness they said that they were carrying cholum, and the Bráhman went away. Arrived at their destination, they found their pepper converted into rotten cholum, and, remembering their lie, they vowed that, were the goods turned into pepper again, they would spend half their profits in building a temple near the spring. The transformation was immediately accomplished, and after once trying to evade the fulfilment of their vow, which was defeated by Siva, they returned to Mogili, found the lingam, recognised its divine character, and built the present temple round it. They also dug a well at the spring, as well as a small stone tank, supplied from the well through a sculptured bull's head. There is now, even in times of the severest drought, a constant flow of water from the well through the bull's head to the tank, and the spring is believed to come from the pool in the cave, 5 miles distant, where Párvati resided.

Mogili is situated at the foot of the Palmanér ghát and was no doubt a considerable settlement of Linga Balija or Canarese merchants, who traded between the plains and the plateau in pepper and other commodities. They were expelled by the poligars, and the village has lost all its trading importance, being now a feverish, unhealthy spot, but much revered by the people of the district. Some say that a subterranean passage exists, leading from hills here to the neighbourhood of the Náyakkanéri ghát, for fowls which have flown into a cavern in the hills have, it is asserted, made their appearance in the Gudiyáttam taluk, but no one ever ventured to follow them, and even the position of the cave is now unknown.

Aragonda: Population 1,959. This is a flourishing village about 14 miles north-west of Chittoor, situated in an extremely fertile valley, well supplied with water in the driest season. A moderate trade is carried on in grain, jaggery, tamarind and cumblies. It was once a very large place, being a depôt for merchandise passing to and from the Ceded Districts, as Wálájápet was in the last century. When its decay began is unknown, but it is long enough ago to be now embodied in fable. The tradition is that a rákshasa swallowed up the town, and then, fleeing from Vishnu's wrath, hid himself in a rock, 2 miles from the present village, called *Rákshasa tippa.* Vishnu however placed three lingams, one at Kálahasti, one at Tirupati, and one at Aragonda, and the rákshasa was unable to move beyond the limits of the enclosed triangle. He was eventually caught and punished as he deserved. The country between the three *Siva stalams* was called the 'Trilingadésam,' from which (so the Aragonda folk flatter themselves) the language spoken by them, Telugu or Trilingu,

Places of interest.

was named. The name of the town is derived from the appearance of the hill close by it, which is thought to look like a mountain split in half: *ara* (half) and *konda* (mountain).

Mélpádi: Population 2,245. This is a village upon the eastern border, which has an ancient Jain temple, now converted into one dedicated to Siva, and considered very holy. The tradition attached to the place acknowledges the original Jain occupation. The three celebrated poets—Appar, Sambandar, and Sundarar—started for the temple in order to convert it into a Siva shrine by means of their sacred poetical compositions. The Ponné river, which flows hard by, was however in full flood, and they had to turn back. When the flood subsided they returned, singing in Tamil 'inimél pádalám' (we shall sing hereafter); the three middle syllables of the sentence were applied to the village as its name, and the poem, the recital of which converted the shrine into a place fit for the worship of Siva, was to the effect that the moon did penance here to Siva, and made a yágam, which induced the swámi to appear in human form and grant the moon's desires. This fanciful tradition illustrates the mode in which the fables now embodied in the various stala puránams originated.

Vallimalai: This village is about a mile west of Mélpádi and is another important site of the Jain worship, as appears from the existence of many Jain figures carved upon rocks in the neighbourhood. Some inscriptions also exist which have never been deciphered. The temple on the hill has, like that of Mélpádi, been appropriated by the Saivites, who have manufactured a story for it. Valli was the sister of Tiruvalluvar, and the daughter of a Bráhman by a Pariah woman. Her mother always left her infants where they were born, and Valli was in the usual way abandoned here, but some Védans (hunters) found and supported the infant, who, when she grew up, was one day sitting on the hill, watching a field of grain, when Subramaniaswámi of Tiruttani fell in love with her. He bored a subterranean passage from his temple to this spot, wooed Valli, married her, and lived with her on the hill for several days. In commemoration of this the temple is said to have been formed by one of the Chóla kings. It is built up within a large natural cave, some 40 feet by 20 feet in size, with a height varying from 7 to 10 feet. There are three chambers, all without ornament of any kind. On one side is a small passage to the exterior, now pointed out as that used by Subramaniaswámi. The Jain sculptures are in two spots, one to the north and the other to the south of the temple, and are very well executed, one being of superhuman dimensions. Above the group on the south, the top of the hill has been levelled, and there are traces of walls, which the villagers say formed part of a small fort occupied by Jains long ago.

CHAP. XIX. CHITTOOR.

There are clear signs to the east of the road of a large fort which once stood there.

Places of interest.

Kótanattam, a hamlet of Mélpádi, adjoins Vallimalai. Here without doubt was a large settlement of the Kurumbas. At Ponne in the Wálájá taluk, a few miles distant, on the other side of the river, was another fort, and near its site are some very curious examples of cromlechs and stone circles.

Mahimandalam: Population 3,110. This village is about 2 miles west of Vallimalai. It lies at the foot of a high and extensive hill, upon which is built the Mahimandala-durgam or 'fortress of the world,' so called on account of its great strength. By nature the hill is impregnable upon all sides except the east, which is protected by barriers, formed of loose stones, in addition to the walls of the fort. The fortifications are very extensive and interesting; they are said to have been built by the Mahráttas, from whom they passed to the Muhammadans.

Airála, or *Ahirájagiri*, as the uncontracted name should be, is a village with a population of 1,241, situated about 13 miles to the north-west of Chittoor, and close to the Punganúr border. It has a police station and an excellent tope for camping in. Ádi Sésha, the king of snakes (ahi-rájá), once took up his residence in a cave in one of the adjoining hills. As Venkatésaperumálswámi was roaming about in search of a resting-place, he placed one foot upon the hill, and very nearly squeezed the life out of Sésha, who managed to cry out and ask the swámi to move on. The print of Venkatésaperumál's foot is still pointed out upon the top of the hill. Some fair shooting can be obtained in the Airála jungles.

Pútalapattu: Population 2,337. Travellers' bungalow, police station, post office, railway station and chatrams. This is a large village, on the Cuddapah road, about 10 miles north of Chittoor. Near here the Airála river unites with the Ponné. On its banks is one of the temples built by the great temple-building Chóla rájá. Pútalapattu and Kalavagunta, 5 miles to the south of it, are both regarded as somewhat sacred places. A Bráhman was, the local legend says, many years ago carrying the bones of his mother to the Ganges. Halting at Kalavagunta one night, where the Aragonda river and the Ponné unite, he found that the bones had all mysteriously changed into the buds of the 'Kalava' or blue water-lily. At Pútalapattu next morning he again examined them, and found the buds had opened into flowers (*pú*, flower; whence the name Pútalapattu). He did not look at them again until he got to Benares, where he found them bones. He therefore concluded that the river near Kalavagunta was more sacred than the Ganges, and retracing his steps, cast his mother's bones into

Places of interest.

the river near a rock ('gutta') in its bed, on which is seen the print of Siva's foot. The proper name of the village is Kalavagutta, which is generally altered into Kalavagunta. The bones of deceased persons are even now brought from all parts of the taluk and deposited in the river near this rock.

Náragallu: Population 878. This was originally the seat of the Náraganti poligar, who had a stronghold near it, upon a high precipitous hill which forms a bold feature in the landscape. The fort is now entirely ruined, and the adjacent village of NARASINGARÁYANIPET has for many years been the more considerable place. It is situated upon the right bank of the Ponné, and is a flourishing agricultural village. In olden times, the people say, the neighbourhood was celebrated for the quarrelsome nature of its inhabitants, which all arose from Náradha Mahámuni, a most cantankerous saint, having lived in a mountain near. It was in the neighbourhood of this village that Hyder Ali died, and a rough masonry platform still marks the spot.

Náraganti: This pálaiyam is 28,023 acres in extent, and contains 69 villages with a population of 12,677. The area under cultivation is a little less than 10,000 acres. The land revenue is about Rs. 33,000. The peshkash payable to Government is Rs. 6,503, and the cesses amount to Rs. 1,738. The present poligar, who is of the Balija caste, is a minor, and the estate, which is much involved, is in the possession of mortgagee.

Tumba: Population 354. Chief village of pálaiyam of same name. The pálaiyam, which lies in the extreme west of the taluk, is 25·277 acres in extent, and contains 10 villages with a population of 1,363. The area under cultivation is 787 acres. The land revenue is about Rs. 5,500, and there is an income of about Rs. 2,000 from forests. The peshkash payable to Government is Rs. 1,783 and the cesses amount to Rs. 253. The present poligar, who is of the Ékari caste, is a minor, and the estate is now under the management of the Court of Wards.

Gudipáti: This pálaiyam lies to the south-west of Chittoor, and is 33,730 acres in extent. It contains 45 villages with 5,437 inhabitants. The area under cultivation is about 1,100 acres. The land revenue is about Rs. 9,800, and the poligar enjoys an income of about Rs. 2,000 from other sources. The peshkash payable to Government is Rs. 2,728 and the cesses amount to Rs. 467. The encumbrances on the estate amount to about Rs. 45,000. The Gudipáti poligar was the only one of the Chittoor and Chendragiri poligars who did not join in the rebellion at the beginning of this century. The present holder of the estate is Subbarámappa Náyanivároo and, like most of these poligars, he is of the Ékari caste.

CHAP. XIX. CHITTOOR.

Places of interest.

Ávalkonda: This is a village in the western border of the taluk, which is of no present importance, but was once the residence of a jágírdár, who had a fort upon a hill close to the village, with a strange resemblance to a lion couchant. The descendants of the jágírdár still live in Ávalkonda, and are of very good family, being related to the Nabob Sádat-ullá Khán. The elder brother of the latter, named Ghulám Ali Khán, was in 1705 granted by the Delhi emperor the jágír of Vellore with the post of killadár of the fort. He was succeeded by his son Bákar Ali, upon whose death the estate was divided between his two sons, Ghulám Razá Khán and Ghulám Murtaza Khán, more commonly known as Mortiz Ali. To the former, who was the elder, were assigned the districts of Vellore and Ávalkonda, with a few smaller ones; while the latter received Chittoor, Dévaghar and Pavinghar. The brothers however made an interchange of Chittoor and Vellore, and as killadár of the latter place, Murtaza Khán made himself not a little conspicuous during the Carnatic wars. The value of Ghulám Razá Khán's jágír was about a lakh and-a-half of rupees, and its possession was confirmed by Anwar-ud-dín. During Wálájá's time, however, disputes arose between him and his feudatory, who was besieged in Chittoor fort, and obliged to surrender. Only half of the jágír, including Ávalkonda, but not Chittoor, was continued to him after his submission. In the Company's time it consisted of 27 villages and 18 hamlets, worth Rs. 22,000, scattered over the taluks of Vellore, Tiruvalam, Sátghur and Pólúr. As the jágírdár had always proved himself a most faithful ally, every endeavour was made by Government to treat the family liberally, but the Court of Directors were not prepared to make many concessions. The estate was not stated in the original grant to be hereditary, and the Court directed that it should therefore be resumed, and a suitable allowance substituted. The last jágírdár died in 1848, leaving a son, Haidar Dost Khán, to whom after some correspondence the three villages around the fort, worth Rs. 3,300, were granted upon a nominal rent of Rs. 100 a year, with a pension of Rs. 1,800, which brought the allowance up to the sum of Rs. 5,000, half of the sum recommended by the Board. Even this the Court of Directors declined to grant in perpetuity.

GUDIYÁTTAM TALUK.

CHAP. XIX. GUDIYÁTTAM. General description.

THE Gudiyáttam taluk forms a long strip lying upon the northern bank of the Pálár and opposite to the Vellore taluk. It is bounded on the west by Palmanér, and on the north by Chittoor, while its narrow eastern border adjoins Wáláj́á, the Ponné river marking the boundary. Its length from south-west to north-east is nearly 50 miles and its average breadth about 9 miles, the superficial area being 446 square miles.

Hills.

The Eastern Ghauts throw many spurs into the western portion of the taluk, which is therefore composed of hills interspersed with valleys. The Chittoor hills also run for a short distance into the north of Gudiyáttam, and the rest, that is the strip which borders the Pálár, is generally flat. The chief elevations are the Vandrantángal hill, two miles north of the Kátpádi railway station, the Sátghur hills, Kailásagiri or Ambúrdrúg, and the Nágal or Kódimúkkumalai, so called from its fancied resemblance to a fowl's beak.

Rivers.

Besides the Pálár and Ponné, which flow along the borders of the taluk, there are various smaller rivers rising in the hills and flowing southwards into the Pálár. The chief of these are the Koundinianadi, or Gudiyáttam river, named after a rishi, and the Goddár or Ambúr river, so called from its poverty in springs—*goddu* (barren), *ár* (river). These rivers contribute little directly to the irrigation of the taluk, except when in flood. At other times they are dry, but have excellent spring channels.

Soil.

The soil is good, being generally a mixture of sand and red clay; in a few parts a blackish soil resembling black cotton soil is found, and rather more commonly a grey compound of sand and dark clay.

Forests.

The taluk contains over 100 square miles of Government forest. It is confined for the most part to the hill tracts, and produces little timber fit for building, but a good deal fit for fuel, and owing to the immediate vicinity of the railway this is very valuable. The forests are, however, rapidly improving under the careful conservation of recent years. Honey, wax, lac, and medicinal drugs are to some extent collected and brought to the periodical markets for sale.

Fauna.

Cheetahs, hyænas, bears, and wolves are not uncommon, and do a good deal of damage to cattle. Some good bear shooting can be obtained in the hills near Sátghur.

Climate.

The taluk is fairly healthy, though the tracts at the foot of the gháts are feverish, as also are the slopes. The average annual

CHAP. XIX. GUDIYÁTTAM.

rainfall is about 39 inches, and the average number of wet days is 54 per annum.

Communications.

The south-west line of the Madras railway traverses nearly the entire length of the taluk from east to west. The stations are at Tiruvalam, Kátpádi (junction), Láttéri, Virinchipuram, Gudiyáttam, Ulli and Mélpatti. Just beyond the last named the line crosses the Pálár and enters the Vellore taluk. The Villupuram-Guntakal line runs through the eastern end of the taluk, but the only station within its boundaries is the Kátpádi junction.

The total length of roads is 130 miles. Among the most important lines are the road from Kátpádi to Chittoor, that from Tiruvalam to Gudiyáttam *viâ* Kátpádi, one from Gudiyáttam railway station to Palmanér, and the road from Gudiyáttam to Venkatagirikóta *viâ* Sátghur and the Náyakkanéri ghát.

Administration.

The taluk lies in the Sub-Collector's division. The chief local revenue officer is the tahsildar (salary Rs. 175). He is also a magistrate, but the bulk of the magisterial work is performed by the stationary sub-magistrate at Gudiyáttam. The taluk forms a single police division under an inspector, and is divided into six police station charges. In respect to civil actions it is situated within the jurisdiction of the district munsif of Vellore. The number of villages, including the town of Gudiyáttam, is 183,[2] and all are inhabited. Of the total number 181 are Government villages and two are inám.

Population.

The population in 1891 was 176,709, of whom 87,821 were males and 88,888 females. The population of the Government villages is 174,303. Hindus number 160,620, Musalmans 14,700, and Christians 1,383. The population has increased by 14·27 per cent. since 1881, and there are now 396 persons to the square mile. The number of occupied houses is 27,933, and there are on an average 6·33 inmates to each house. Of the male population 86·09 per cent. are illiterate, 11·33 per cent. can read and write, and 2·58 per cent. are learning. Of the females, 99·18 per cent. are illiterate. Tamil is the mother-tongue of 120,064 persons, Telugu that of 48,273 and Hindustani that of 6,189. Classified by means of subsistence the population consists of 86,577 landholders and tenants, 32,151 agricultural labourers, 8,3:4 general labourers, 15,626 traders, 9,149 weavers, 8,342 other artisans and 16,530 'others.'

The land.

The area of *ryotwári* land in the taluk is 271,500 acres, that of *minor ináms* is 13,970, and that of *whole inám* villages 323 acres.

---

[2] In the census returns the number of villages is given as 184, an error due to Páranambattu having been divided into two portions, each of which was treated as a separate village.

The land.

There are no zemindáris. Of the ryotwári land about 72,900 acres are under forest and 78,800 acres are not available for cultivation. Of the remainder, 95,600 acres are in occupation, and the area available for extension of cultivation is thus 24,200 acres, but about 17,000 acres of this are said to be unfit for tillage. The area cropped in 1892-93 was 93,600 acres of ryotwári land and 11,200 acres of minor inám, or about 0·60 of an acre per head of the population of Government villages. Including the area cropped more than once the extent was 134,200 acres. Rice is the principal crop, and is grown on nearly 44,000 acres in Government villages. There are nearly 10,000 acres under oil-seeds, about 3,000 acres under indigo and 8,000 acres under orchard and garden produce. Ragi, cumbu and horse-gram are the principal dry crops. Of the total area of ryotwári holdings in fasli 1302, the dry lands comprised 72,500 acres and the wet or irrigated lands 23,900 acres. The average assessment was Rs. 1-5-7 for dry and Rs. 6-2-5 for wet, or Rs. 2-8-8 for all lands taken together. There were in that year 15,426 single and 8,199 joint pattás, and 10,768 of the former and 4,893 of the latter were for sums below Rs. 10. The normal land revenue of the taluk is Rs. 2,63,000, and the cesses charged on land revenue amount to Rs. 39,000.

The principal irrigation is from tanks and spring channels. The rivers contribute little directly to the irrigation of the taluk, except when in flood. At other times they are dry, but have excellent spring channels which are used for irrigation. The chief tanks are those of Cheruvanki, Kávanúr, Kamparáyapuram, Kátpádi, Dhárápadavédu, Láttéri and Véppúr. In these there is a good deal of fishing. There are altogether 134 tanks, 77 river channels, and 175 spring channels, besides 3 private tanks. There are also 12,503 wells, of which 2,627 are used to supplement other sources of irrigation. The total area irrigated in 1892–93 was 27,000 acres, but, if the area cropped more than once be included again for each crop, the area irrigated was about 56,000 acres.

The agricultural stock in the Government villages is as shown in the marginal table. Interpreting ploughing cattle to mean bulls, bullocks and male buffaloes, there is one pair to every 4·56 acres in occupation, the district average being one pair to 5·45 acres; there are 17 cows and cow buffaloes to every 100 inhabitants against a district average of 19; and there are 74 sheep and goats to each hundred acres in occupation, the average for the district as a whole being 83.

Bulls and bullocks ...	41,941
Cows	22,001
Male buffaloes	6,107
Cow buffaloes	7,831
Young stock	32,126
Sheep	55,223
Goats	25,421
Ploughs	22,345
Carts	2,663

CHAP. XIX. GUDIYÁTTAM. Products.

In iron Gudiyáttam is very rich. Lime and building stone are also quarried to a large extent.

The chief manufacture is that of female cloths, which is largely carried on in the town of Gudiyáttam from a mixture of silk and cotton thread; some are exported to Madras, but most are of the common kind and are consumed in the taluk. In a few villages coarse cumblies (blankets) are made by Kurumbas, their value being a little less than a rupee. At Karigiri superior pottery is fashioned out of a white clay. The potter is extremely skilful, and some of his shapes and ornamentation are very graceful. The pottery is often painted a rich green and then glazed.

Gudiyáttam is the chief town of the taluk. It has a population of 18,747, of whom 15,851 are Hindus, 2,862 Musalmans, 28 Christians and 6 Jains. The number of occupied houses is 3,275. No less than 7,301 of the inhabitants are supported by weaving and 3,655 by trade. The town is a municipality under the District Municipalities Act and the municipal income amounts to about Rs. 15,000 per annum. It is the head-quarters of the tahsildar, stationary sub-magistrate, police inspector and sub-registrar. It has a police station, post and telegraph office, dispensary, travellers' bungalow, a railway station (height above sea-level 867·50 feet), several chatrams for Hindus and one for Musalmans.

The town of Gudiyáttam lies 3 miles north of the Pálár and about the same distance from the railway station. It includes six suburbs and is divided into two portions by the Koundinia river.

It is a clean, well arranged little town, most of the houses being tiled, and the streets well laid out. The chief industry is weaving, but Labbais, Vánias, and Canarese merchants carry on a brisk trade, the first in jaggery, hides, tamarind, tobacco, and ghee; the second in grain and oil; while the last keep petty shops and lend out money. All these are very well to do, but the hard-working weavers earn but a scanty subsistence. Every Tuesday a large cattle fair takes place, which rivals that of Ranipet. Some 500 head of cattle are usually exposed for sale, besides the goods found in ordinary markets.

The town appears to be a comparatively modern one. It has only one temple, built 250 years ago by a Canarese named Hóliappa, in honour of Bálasaratuléswara, or the god who rescued a child from a tiger. The story goes that Hóliappa used to trade in pepper between these parts and the Ceded Districts, and once, when he was returning home, he halted at a spot having a small temple (gudi) and a picota (yátam). Here a tiger carried off his young son, but left the child in a bush near a concealed lingam. Hóliappa out of gratitude constructed the temple, and the town of Gudiyáttam sprung up around it.

Places of interest.

Sátghur or *Sátgadi:* Though a very small place, Sátghur is interesting on account of its celebrated forts. The name is derived from the seven hills upon which are erected as many hill forts, also called the 'Yédu Kondala durgam.' The jágír, worth three lakhs, was originally granted by the Emperor Muhammad Sháh to one Hirasut Khán, who, upon the assassination of Safdar Ali at Vellore, acted as naib of the minor Muhammad Ali. When the latter was himself assassinated at Arcot, Anwar-ud-din sent Hirasut Khán back to his jágír. He was succeeded by his son and grandson, but Wálájá removed the latter on account of his being the grandson on his mother's side of Chanda Sahib, and gave him the small jágír of Kávanúr, worth Rs. 40,000. This was resumed after Hyder's war, and a small pension substituted.

Not much fighting seems to have taken place at Sátghur, in spite of its proximity to the entrance of the Náyakkanéri ghát. The highest of the fortified peaks rises to a height of 2,367 feet above the sea, the other six being somewhat lower. They all form portions of one mass of hills, and some of them have such precipitous sites as at first sight to appear inaccessible, but narrow approaches exist which are easily defended, and altogether the place is of great natural strength, though the forts are inconveniently scattered and must have required a large garrison. The works are attributed to the Mahráttas, and the existence of some Hindu temples and mantapams, together with the style of the fortresses themselves, show that they were not Muhammadan structures, though signs of Muhammadan improvements are apparent. There are some excellent reservoirs of pure water upon the hills, and some natural hollows in the rocks were ingeniously utilized as powder magazines. A somewhat curious tradition exists, that there stood for many years in one of the forts a figure of Vignéswara, bearing the inscription 'Twist the neck and take the money.' This was supposed to refer to the sacrifice of a human victim, and no one was willing to earn wealth at such a price; but not very long ago a sharp-witted bairági thought of twisting the neck of the idol itself. He found that it was movable, and that the figure, being hollow, contained gold coins which he appropriated.

The nabobs of the Carnatic possessed large gardens here, known as the Sátghur Bhágáyets, full of orange and mango trees. The fruit of the former was greatly esteemed, and Sátghur oranges still enjoy a wide reputation. Few however now come from this locality, as most of the orange trees have died out, and only mangoes chiefly survive. Grafts originally taken from hence to Vellore, Ambúr and other places now produce the noted fruits. The descendants of the people who used to tend the gardens are almost the sole

CHAP. XIX. GUDIYÁTTAM.

inhabitants of the village, which contains only a few huts and tiled houses. The scenery of the neighbourhood is bold and pleasing.

Places of interest.

Péranambattu: Population 4,639; police station; two choultries; post office at Sátghur. This is a large trading place only second to Gudiyáttam in importance. It is a mile distant from Sátghur, which must have originally contributed much to its importance. Many of the inhabitants are Labbais trading in jaggery, ghee, tamarind, and hides, which they collect in the Palmanér taluk and bring down upon bullocks by either the Náyakkanéri or the Talapula ghát. It is a dirty, crowded place, but, being inhabited by so many Labbais, the houses are almost all commodious and tiled, and, at the same time, much out of repair. It possesses a handsome mosque of modern date.

Tiruvalam: Population 1,326; police station; railway station; post office; four chatrams; two travellers' bungalows. This village is situated upon the banks of the Ponné river. Its temple, dedicated to Vilvapatéswara, 'the lord of the Vilva forest,' is of considerable size, but of no great interest. The native name for the Ponné is the Níllanadi or water river, because its stream is said to have been brought into existence by Vilvapatéswara in order to relieve his waterman from the risk of going far into the jungles, where a rákshasa threatened to devour him. The swámi's consort is also greatly revered under the name of Tanumudiámbál, so called because she has so narrow a waist. The gun'a is believed to have been dug by her and is therefore styled the Gouritírtam. It is customary for devotees to worship the deities here with the leaves of the vilva tree. Tiruvalam has a large tank, and agriculture is the chief industry of the people.

Gid-Ámúr or *Ambúrdrúg*: The village is a very small one, inhabited by a few agriculturists, and the interest of the place is purely historical. Here, in 1749, the Nabob Anwar-ud-dín opposed Muzaffar Jang and Chanda Sahib, and was slain at a spot about half a mile from the village. The fact is commemorated by the grant of a money allowance of Rs. 30 a month to the family of the person who recovered the corpse. A monument covers the reputed spot of the nabob's death; it is of very rude construction, being merely a flat masonry platform, with an upright pillar having a niche in which a light is kept burning all night. The inámdár asserts that Anwar-ud-dín, before his head was cut off on this spot, especially desired that a plain structure of this kind should be erected. A small makám, where Muhammadan mendicants are fed for three days, stands close to the monument.

Places of interest.

Near to the village on its western side is the fort, built upon a hill about 400 or 500 feet high, called Kailásagiri after a gandharva named Kailásan, who, in consequence of a curse, was born as an elephant and lived upon the hill, which is also called the Kúshmánda hill. It was at one time a strong fortress, and its construction is attributed to one Moklis Khán, a killadár of the nabobs. The fortifications were improved by the English, but little remains except a few broken walls. The lower fort could never have been of any strength. Its gateway is a small one of brickwork, and its walls, which have been altogether robbed of their revetment, are said to have been faced with only small round stones, roughly put together. Hardly any traces of the ditch remain. Within the enclosure are the unroofed remains of a considerable pile of buildings, but these having been built only of mud, faced with a thin coating of chunam, are crumbling to pieces. The hill is very precipitous, except upon its eastern face, where access is easy. Little remains of the upper works, the main bastion having been knocked to pieces by Tippoo's artillery stationed upon an opposite eminence about the same height as the drúg, and partly connected with it, and the rest having been subsequently destroyed. There is a curious cave, of considerable dimensions, at the south-east corner, formerly used as a magazine; also a small Hindu temple and a cannon buried horizontally in a pit, which escaped destruction when all other guns were destroyed some years ago, and which is pointed out with pride by the people of Gid-Ambúr. The siege of the fort by Hyder in 1767 and its gallant defence by Captain Calvert have been described in the first volume.

Mahádévamalai: This village is about 8 miles to the east of Gudiyáttam, and is regarded with great veneration by the people. A small temple of Máhádév, or Siva, is built upon the hill close by, and in the rock by its side a few hollows have been cut. The pious, who desire some assurance of their piety, visit this spot and place a little cooked rice, ghee, and milk separately in the hollows. If their devotion be acceptable to the deity, two vultures appear exactly at noonday, bathe in the milk, eat the rice and ghee, and then fly away. These birds are believed never to die, and to come every day from Tirukkazhukkunram, in the Chingleput district, some hundred miles distant, where they are always seen at 10 A.M. They are said to be the abodes of the spirits of two Bráhmans, Sambarán and Sampáti, who after successfully doing penance to propitiate Siva, incurred his displeasure by asking for a favour which they did not originally intend to ask for. They were therefore doomed to be born as immortal vultures.

CHAP. XIX. GUDIYÁTTAM.

Places of interest.

Malayampattu: Population 776. A village in the south-west of the taluk. On the west of the village is a hill with a reservoir of water, near which is a rock with old paintings. The inhabitants declare these to have been made by the Pándavas. Similar pictures are also found on a rock at the entrance to an extensive cave near the neighbouring village of Kárappattu.

Dhárápadavédu: Population 3,323. This village adjoins Kátpádi (q.v.).

Kátpádi: Population 2,511; police station; travellers' bungalow; chatrams; post office. Kátpádi is now an important railway junction, and, with the adjoining village of Dhárápadavédu, promises to become a large place, the combined population of the two being already nearly 6,000. The height of Kátpádi station above sea-level is 696·85 feet.

Láttéri: Population 1,922; railway station. There are some Jaina remains here.

Pasumáttúr: Population 3,234. An agricultural village near Gudiyáttam railway station; contains some Jaina remains.

Tuttippattu: Population 1,339. This village is about a mile from Ambúr railway station. Fans are made here from palmyra leaves and often tastefully decorated in brilliant colours. The village possesses a very old Vishnu temple, with inscriptions on two stones at the entrance and on the walls round the *garbhagraham.*

Karigiri: Population 1,590. A village not far from Kátpádi, where ornamental pottery is made, generally with a green glaze.

KÁLAHASTI ZEMINDÁRI.

KÁLAHASTI.

General description.

ONLY a part of this zemindári lies in North Arcot, the rest being situated in Nellore. The North Arcot portion lies at the extreme north-east corner of the district, being bounded on the west by the Chendragiri taluk and Kárvetnagar zemindári; on the north and north-east by Nellore; on the south-east by Chingleput; and on the south by Kárvetnagar and the same district. Its outline is very irregular, and the Satyavéd taluk of Chingleput divides it into two portions. The area is 874 square miles.

Hills.

The Eastern Ghauts enter the zemindári at its north-west extremity, and run along the border between it and Cuddapah. To the east of them the country is generally open as far as the sea, that is to say, the whole of the northern portion of the estate is comparatively flat, and is mostly covered by a stunted growth

Hills.

of scrub. The Nagari hills run northwards from Kárvetnagar along the eastern side of the Swarnamukhi river as far as the town of Kálahasti. On the east of this range, and almost parallel to it, are the Alikúr hills, divided by a gap, through which the Náráyanavanam river flows. They form a bold and lofty range, which lies partly in Mádarpák and partly in Chingleput. The two chief peaks are Rámagiri in the south, close to the large village of Nágalápuram of the Chingleput district, and Kámbákkamdrúg in the north, which a few years ago was decided to belong to Chingleput. The range which extends over a distance of about 30 miles terminates near the village of Káttúr in the Kálahasti division. East of Nágalápuram begin the Ténémalais, a rather lower line of hills, which derive their name from the fact that they were once celebrated for their honey. They have a westerly course as far as Madanambéd, and then run northwards to Vánellúr. All these hills are well covered with vegetation, and have several perennial streams discharging down gorges, or kónas, where the finest forest grows. The principal gorges are the Modalli kóna, Mallavári kóna, Sálava kóna, and the Chaddikutti madugu. They are all regarded as sacred, but the last particularly so, having representations of the seven celebrated virgins carved upon a rock, where villagers assemble in October and offer jaggery and water to the figures. Upon the hill close by is a dismantled old hill fort, called Mádigadurgam, built, the people say, by a Mádiga (cobbler) chief who once ruled the surrounding country. There are several other forts in the zemindári, the principal being Ándavaramkóta, 10 miles south of Kálahasti, in the Nagari range of hills. It is now deserted, but was once often inhabited by the zemindar. It had two roads leading to it, one defended by three and the other by two barriers, and was at the cession reported to be strong, being surrounded by very difficult country. It was then well stored with grain and mounted a few cannon and thirty jinjal pieces. At Tripurántakapuram is a fortification of no strength, situated upon the plain, and another of the same character is found near Igaváripállam. There was another at Sítárámpur, mounting two cannon and fifty jinjals, at the base of the Siva durgam, which was not fortified, though a few buildings stood upon its summit. All these fortresses were destroyed by the British, and only the ruins now remain. There are signs of fortifications at Bráhmanapalli, Nirupákkam, and Tondamánádu, the last village, near Kálahasti, being locally a somewhat celebrated place since the Tondaimán is believed to have lived there.

Rivers.

The chief rivers are the Swarnamukhi, the Rállár, and the Arunánadi or Náráyanavanam river. The first flows past the town of Kálahasti and goes into the Nellore district. The second rises among the hills south of Kálahasti town, and after flowing

CHAP. XIX. KÁLAHASTI. Rivers.

for about 25 miles in a north-easterly direction, doubles back to the south-east and discharges into the Pulicat lake. It derives its name—'the rocky river'—from the rocky nature of its bed, a very unusual feature in the rivers of North Arcot. The Arunánadi drains the south. and contains, as do the other two, excellent springs. Its name is said to be derived from the word 'aruni,' which signifies a branch of the *Ficus religiosa*, used for producing fire. The legend states that when Bramha desired to perform a yágam at Bramhagiri, Saraswati entered one of these trees, and after producing fire from it, issued forth in the shape of the present river. The other small streams are the Válagala Montha, in which Válaga fish are caught, and the Kálingi in the Kálahasti division, and the Goddár, or barren river, which is a tributary of the Arunánadi in Mádarpák. The Swarnamukhi and the Rállár have dams of stone set in mud built across them.

Soil.

The soil is for the most part a red clay mixed with sand and gravel, and is not very rich except in the south of Mádarpák.

Forests.

The forests of Kálahasti are of considerable value. They are usually leased out by the zemindar, and a good deal of charcoal and firewood are exported from the Mádarpák division to Madras by the canal.

Fauna.

Cheetahs, bears, and smaller game are fairly numerous, and a tiger is occasionally heard of. A large number of Irulas and Yánádis live among the hills, and gather honey, roots, and barks, which are sold in the plain villages.

Communications.

The Nellore-Tirupati railway passes through the zemindári, connecting with the Madras railway at Rénigunta and again at Kátpádi. The railway stations are at Yérpédu, Kálahasti and Yellakúr, but the last is situated just over the Nellore boundary. The zemindári is very badly off for roads, the only highways of importance being the Rénigunta-Náyudupet road, which runs through the town of Kálahasti, and the branch from Yérpédu (Yérpét) to Venkatagiri; an indifferent road runs from Kálahasti into Mádarpák.

History.

The history of the Kálahasti family, which belongs to the Velama caste, appears to be very obscure, the members of it being able to cast little light upon it. They state that one Oraganti Pratápa Rudrulu, an ancient king of the country, granted the estate to Dámara Javi Ráyaniváru, the first poligar. It may be safely presumed that they were originally Ménkávalgárs, appointed by the Vijayanagar kings about the fifteenth century. Like others of the same standing, they became after the fall of that kingdom a lawless set, constantly warring against their neighbours and appropriating fresh territory. In the middle of the seventeenth century the Kálahasti poligars had possession of the country as far as

History.

Madras and Conjeeveram on the east and Wandiwash in the south, and from one of them, named Dámerla Venkatádri Naidu, Mr. Day in 1639 obtained the grant of Chennankuppam, a small fishing village north of Mailápúr, where, after obtaining a sanad from the Rájá of Chendragiri, he built Fort Saint George. Part of the agreement with the poligar was that the new settlement should be called Chennapattanam, after his father Chennappa Naidu.

The earliest sanad produced by the poligars at the cession was one granted by the Emperor Aurangzib, which showed that they then held their estate upon a military tenure, being immediately subordinate to the Arcot Nabob, and bound at his summons to appear in the field with 5,000 armed footmen. Their military power was always considerable, but not generally utilized in a desirable manner. To illustrate the lawless character of this and the neighbouring family of Kárvetnagar their history during the last ten years of the eighteenth century may here be given. In 1790, when the Company's troops were absent in Mysore, the Kálahasti poligar's son took up arms against his father, being assisted by Kárvetnagar, and the poligar was forced for a time to resign his authority, until the commandant of Chendragiri marched up and suppressed the disturbance. A few years later the two poligars waged a small war against one another in support of claims to some debated frontier lands, and when Kárvetnagar was ordered to desist, he replied that were he to do so he would be disgraced in the eyes of his caste: nor did the contest cease till many lives were lost. In 1799 two brothers contested the right to possession of the Matla zemindári in Cuddapah, and each invoked the assistance of these poligars, who accordingly took opposite sides, and both intrigued with the Fouzdár of Cuddapah for considerable sums of money. They took the field with some 6,000 men each, and Kálahasti was defeated, losing two guns. He however reinforced his little army, and, in spite of the remonstrances of Government, seized Matla and placed his ally in possession of the estate. In 1801 both poligars were forced to disband their armed retainers, and in the following year obtained permanent sanads entitling them zemindars and making considerable additions to their peshkash. That of Kálahasti now amounts to Rs. 1,73,140, but the revenue from the estate probably exceeds five lakhs. The present zemindar, whose name is Damara Kumara Muddu Venkatappa Naidu, was born in 1850 and succeeded his father in March 1881. He possesses the hereditary title of Rájá.[3]

Administration.

The zemindar divides his estate into the taluks of Kálahasti and Kac'chinádu, which are again sub-divided into several mágánams; but for Government administrative purposes it is divided into two

[3] This zemindar died while this chapter was going through the press. He is succeeded by his minor son.

CHAP. XIX. KÁLAHASTI. Administration.

divisions, Kálahasti on the north-west, and Mádarpák on the south-east, each in charge of a deputy tahsildar, who is also a subordinate magistrate. The revenue work of this officer is very light, the only important business being the collection of the income tax. Each of the above divisions constitutes a separate single police division under an inspector. Kálahasti is divided into six police station charges and Mádarpák into seven. In respect to civil actions, both are situated within the jurisdiction of the district munsif of Tirupati. There are 359 villages in Kálahasti including the town of the same name, and of these 296 are inhabited. In Mádarpák there are 190 villages, of which all but 15 are inhabited. Of the total number of 549 villages 220 are inám. The Mádarpák division is difficult of access from the rest of the district, the most expeditious route to it being by canal from Madras, or across a long distance of the Chingleput district from the Tiruvallúr railway station. For this reason it was ordered in 1870 to be transferred to Chingleput, but the zemindar objected to having parts of his estates in three districts. A transfer of both Kálahasti and Mádarpák was then proposed, but abandoned owing to the great distance of Chingleput, the Judge's head-quarters, from Kálahasti. The Kac'chinád taluk has, however, now been ordered to be transferred to Chingleput with effect from 1st April 1894.

Population.

The population in 1891 was 147,860, of whom 75,144 were males and 72,716 females. Hindus number 143,904, Musalmans 3,748 and Christians 208. The population has increased by 25·28 per cent. since 1881 and there are now 169 persons to the square mile. The number of occupied houses is 27,094 and there are on an average 5·46 inmates to each house. Of the male population 88·84 per cent. are illiterate, 8·56 per cent. can read and write and 2·60 per cent. are learning. Of the females 99·70 per cent. are illiterate. Telugu is the mother-tongue of 110,548 persons, Tamil that of 32,656 and Hindustani that of 3,619. Classified by means of subsistence the population consists of 75,964 landholders and tenants, 16,935 agricultural labourers, 10,157 general labourers, 14,837 traders, 5,390 weavers, 8,231 other artisans and 16,346 'others.'

The land.

The statistics of cultivation are not altogether trustworthy, as there has been no cadastral survey of the zemindári and the supervision of the karnam's measurements is neither scientific nor complete. The normal area cultivated may be put at about 60,000 acres, the assessment being Rs. 4,30,000.

The lands are regarded both by the proprietor and the tenant as the absolute property of the former, the ryots being merely tenants-at-will, without right of sale or transfer; but practically this idea has no effect in making the cultivator's position uncertain.

The land.

It is, however, an undoubted fact that, except in the flourishing parts south of Mádarpák, few wells exist other than temporary ones made of wickerwork. The rent varies greatly from village to village, but the general principle is that the zemindar should receive one-half of the produce. Many villages are leased out for fixed sums to a few of the chief cultivators, who make their own terms with the ryots. Fixed money payments only exist for the most unfavourably situated lands (konda bhúmulu or hilly lands), and as the rates for these are for wet from Rs. 9 to Rs. 1–8–0, and for dry from Rs. 2–14–0 to As. 10 per acre, the excessive nature of the assessments for good land may be imagined. The zemindar has nevertheless become considerably involved and his debts are said to amount to twenty lakhs of rupees.

Products.

Besides iron, lime, and building stone, Kálahasti has copper and a great deal of the soda soil used for making glass. Iron is not now worked at all, but it used to be obtained in the village of Sirasanamédu in the Kálahasti division, where it occurs in nodules, and near Talárivettu, on the north-west of the Mádarpák division. The position of the old copper mines, which are no longer worked, seems now unknown, but they were probably on the northern border. In the Mádarpák division shell chunam is largely produced. The other industries are weaving and glass-making, the former being chiefly carried on in the Mádarpák division and the latter in that of Kálahasti, though it is also found at Gázulapellur and Kánchanaputtúr villages of Mádarpák. The glass-making villages in the Kálahasti division are Kásaram, Chintapalli, Álattúr, Káttúr, Kottapáliem, and Pillamédu. Vast numbers of bangles as well as lumps of glass are here made and sold for export to a distance. The most skilful weavers are the Jándras of the Mádarpák division. At Agarampet of Mádarpák brass utensils are made, but the workmanship is poor.

Kálahasti, *Sri Kálahastri* or *Kálástri*: Population 11,754, of whom 10,159 are Hindus, 1,504 Musalmans and 91 Christians; union under District Boards' Act; residence of the Rájá of Kálahasti and head-quarters of a deputy tahsildar and sub-magistrate, police inspector and sub-registrar; police station; post office; railway station (height above sea-level, 215·12 feet) with telegraph office, several chatrams; there is no travellers' bungalow. It is situated upon the right bank of the Swarnamukhi at the extremity of the Nagari hills. The approach to the town from the river is through the last gap in these hills, which close to Kálahasti are considered so holy that it is not permitted to quarry stone or gravel from them.

The centre of the old town is occupied by a square filled with houses, around which four broad streets run and meet one another

CHAP. XIX. KÁLAHASTI. Places of interest.

at right angles. To the east and north-east the town has been irregularly extended, the streets and alleys being narrow, irregular and not very clean.

The temple, from which the chief importance of the town is derived, stands at the base of the southern hill and near the south-west angle of the central square. It is said to have been created by Bramha, in the Krita yuga, when it was of insignificant dimensions, but it was extended and improved by the Chóla kings and by Krishnadéva Ráyalu of Vijayanagar. It is dedicated to Siva, who is believed to manifest himself here in the form of a mysterious and imperceptible current of air. The object of adoration is an ordinary lingam, called the 'Váyu' or wind lingam. It is situated in a retired portion of the building where no breeze can possibly enter, and yet the sacred lamp which hangs suspended from the roof over the idol is never still, but gently sways from side to side. The phenomenon is easily accounted for when it is understood that there are two lamps, one pendant and the other fixed just below it. The flame of the lower one naturally causes an undulating upward movement of air, which affects the hanging lamp and causes it to sway. This is, however, not generally understood, and the motion is still regarded as a standing miracle. The name of the town is said to have been originally Dakshana Kailásam, since Bramha is believed to have brought down the neighbouring hill from Kailása, the mountain on which Siva resides. It subsequently had several changes of name. The tradition states that a Bráhman for his dissolute conduct was born in the form of a spider, and to atone for past follies daily worshipped the lingam and spun a web over it. He was one day burned by the lamp, and in consequence of his piety the place was by Siva called Srípuram, or the spider's town. Next a cobra and an elephant proceeded to worship the idol, the former by placing gems upon it, and the latter by washing it with water. As the elephant's tribute one day disturbed that of the cobra, the reptile entered into the animal's trunk and bit him severely. Agonized with pain, the huge beast ran to the neighbouring hill and dashed his head against it with such force, that he not only crushed his tormentor's body, but fractured his own skull. Siva being pleased with their attentions, re-animated their bodies and called the place Srí-kálahásti, the words meaning respectively spider, serpent, and elephant. Putting the syllable 'sri' last, the name becomes Kálahastri or Kálástri.

A very magnificent festival called the Sivarátri takes place in Kálahasti during ten days in the Tamil month Mási (February-March). The zemindar sends his elephants, horses, and retainers to take part in the various processions. The chief days are from the fifth to the eighth, during which period as many as 20,000 persons

Places of interest.

collect. Each bathes in the river before sunrise on the fifth day of the feast, and then visiting the god and goddess, offers burning camphor. All devout Saivites abstain from food, not only during the day but also the night, which they spend in wakefulness, listening to the reading of puránams or making prayers. Women thought to be possessed by evil spirits, or who have no male offspring, go directly after their bath to the figure of the goddess Gnánaprasannámbá, and lie before it with their faces to the ground. This is called *pránácháram*, and the devotees are believed to gain their objects in proportion to the length of time during which, or the steadfastness with which, they contemplate the attributes of the goddess. On the sixth day the cars are dragged round the four streets of the town, and on the evening of the next day a most gorgeous torchlight procession takes place. All the zemindar's elephants, gaily caparisoned and carrying gilded and silver howdahs, take part, as well as horses with gold and silver trappings, spearmen, torch bearers, and the like. The crowd is dense and the spectacle is one well worth seeing.

The goddess is of course Párvati, who being cursed by her husband was born in human form. After many years of penance she attained to great wisdom, and is therefore called Gnánaprasannámbá, or the flower of supernatural wisdom. The companion of her penance, Durgámbá, has a shrine upon the northern hill. There are several other temples in the town, but only one in honour of Vishnu, and it is not thought much of, as it is too modern to have acquired any wonderful tradition.

To the south-east of the Siva temple is a peculiar rock-cut mantapam with some sculptures, which is called the 'Manikanniaghattam,' in memory of a woman who prayed steadfastly to Siva until he whispered into her right ear the *táraka* mantram. The bodies of those who are at the point of death are often brought to this place and placed upon their right side, the ear resting upon the ground. At the moment of death it is asserted that the body turns round upon its left side, while the spirit passes out of the right ear and attains everlasting bliss.

The big temple cannot be entered by Europeans, but it is said to contain good sculptures. There are several mantapams, one called the hall of a hundred pillars.

Kálahasti is a very thriving town, inhabited by all classes, and carrying on a brisk trade in grain, bangles, and many other articles. A good deal of cloth is woven in its suburbs, but no other industry is deserving of notice. A large proportion of the residents are in the employ of the zemindar, whose residence, an imposing looking building, faces the eastern street of the old town. He has a large

CHAP. XIX. KÁLAHASTI. Places of interest.

garden of fruit trees, with a bungalow in the midst about a mile beyond the town on the north-east.

Álattúr: Population 786. This is the head-quarters of the Álattúr jágír. The jágír was granted by a former Rájá of Kálahasti to Saiyad Kája Muhammad Hussain, but was resumed after his death. His grandson, Karím-ullá-khán, filed a suit for the restitution of the estate, but the matter was compromised and the jágír restored. Further disputes occurred between the members of the original grantee's family. In 1893 the estate was sold by the then proprietrix, Karím-un-nissa Begum, to a brother of the present Rájá of Kálahasti for the sum of Rs. 67,000. The gross annual value of the jágír is said to be Rs. 2,800. The village, which is due east of Kálahasti, contains a ruined Siva temple of some antiquity. The soda earth used for making glass is found in the village, and there are several families engaged in the manufacture of glass and bangles.

Yérpédu or *Yérpét* is a flourishing village, 9 miles to the south-west of Kálahasti, where the Venkatagiri and Náyudupet roads join. It has a population of 598, is a favourite halting-place for travellers, and does a fair trade in grain. At the foot of a hill west of the village is a small temple of Utáléswara, or 'Iswara of the spring.' Here a perennial stream issues from the ground, and being believed to flow from Benares, is called the Kásibugga. Yérpédu has a travellers' bungalow and a police station.

Mádarpák is the head-quarters of the deputy tahsildar of the division of the same name, but it is an inconsiderable village with a population of only 636. A good many weavers, Jándras, live here and export their cloths to Madras. Mádarpák is two miles distant from Satyavéd, a large town in the Chingleput district.

Mávellúr is only a mile distant from Mádarpák, but is more populous, having 1,799 inhabitants. Here also weaving is the chief industry.

Pennálúr is a large village about 14 miles to the south of Mádarpák, where the zemindar's tahsildar has his station. It is chiefly an agricultural village, and has a population of 2,355.

KANGUNDI ZEMINDÁRI.

KANGUNDI. General description.

THIS zemindári is situated in the south-west extremity of the district, and is bounded on the north-west by Mysore; on the north-east by Palmanér; and on the south and south-east by Salem. Its length from north-west to south-east is about 25 miles, and its breadth about 18 miles, while the area of the estate is 346 square miles.

Hills.

Most part of Kangundi lies above the gháts, where the country is undulating and open, with scattered hills. To the south and south-east the gháts fall towards the plain, and here the aspect of the country becomes rugged, covered with rocky gorges and hills relieved by a plentiful growth of small trees, bushes and grasses.

Rivers.

The Pálár is the only river of any importance, and passes through the estate from north-west to south-east in a rocky bed of no great breadth. It frequently comes down in flood, when, owing to the great fall, its course is very impetuous, and it is for the time impassable.

Forests.

There is very little tree growth on the plateau (*Bailu-síma*), but the hilly country towards the south and east is well-wooded and is known as the *Chettu-síma*, or 'tree-country.' The forests have suffered a good deal and there is not much large timber now; but of small growth, useful for fuel, there is plenty and the Kuppam railway station has become quite a fuel depôt.

Fauna.

Bears are probably more common in the rocky jungles of Kangundi than in any other part of the district. Cheetahs are frequently met with, but tigers are rare. Pig and deer are fairly plentiful.

Climate.

The plateau is fairly healthy, but Kangundi itself, and the forest and hill-country generally are decidedly feverish. Skin diseases appear to be very common. The mean annual rainfall at Kuppam is about 32½ inches, the greater part being given by the south-west monsoon.

Communications.

The Bangalore branch of the Madras railway runs through the zemindári and has stations at Múlánúr, Kuppam and Gudupalli, while the Pác'chúr station is just across the border. The only important road is that from Kuppam to Venkatagirikóta and thence to Palmanér. The road from Kuppam to Kangundi, which was made in the famine and abandoned for some years, has recently been put in order and is much used by timber carts. The road from Kuppam to Krishnagiri in Salem, also made in the famine, has been allowed to go out of repair. A road to connect the south-east corner of the zemindári below the gháts (*the kanama-kinda-síma*) with the railway is much wanted, and it would be useful if this could be carried on to the plateau.

History.

This estate appears to have been long in the possession of the present family. According to a history in their possession, one Kambi Naidu, the son of a petty chieftain who ruled over a small estate near Gooty, called Páyapalli, emigrated to the south in the middle of the eleventh century, and settled at Anganamala or Maharázghur, on the Salem frontier. The date assigned to this event is certainly far too early, and it may be surmised that

CHAP. XIX. KANGUNDI. History.

Kambi Naidu was one of the Ménkávalgárs appointed by the Vijayanagar rájás when they established their power in this neighbourhood. From Anganamala, Kambi Naidu removed to Gónagóru, about 3 miles north of Kuppam, and built a fort there; but this change did not satisfy him, for discovering the strong hill of Kangundi during a hunting expedition, he resolved to establish himself there. With great labour the drúg was constructed, with a flight of steps leading to the summit, and a village was built at the foot of the hill. Here his descendants have ever since resided.

Kambi Naidu is said to have founded many villages and built many tanks. He attacked the neighbouring poligars of Tumsi, Digavapáliam, Bétamangalam, Táyellúr, Budigutta, Mélpádi, and Javádipáliam, and annexing their estates, built the forts of Táyellúr, Budigutta, and Bétamangalam. His grandson Mommidi Chinna Vírappa Naidu was not so successful in war, for on attacking a chief named Subajugadéva Ráyalu his forces were utterly defeated, and he was obliged to cede Mélpádi, Anganamala, and Digavapáliam to the conqueror.

Táta Vírappa Naidu, the fifth poligar, is described as having accompanied Zulfikár Khán and assisted at the siege of Gingee. His valour was rewarded by the restoration of the Digavapáliam fort and the taluk surrounding it. In the time of the tenth poligar, Rámabadra Naidu, the Mahráttas invaded the country and forced him to relinquish the taluks of Bétamangalam, Táyellúr, and Budigutta as the price of his being left in undisturbed possession of the rest of his estate.

Varamúrti Naidu, the fifteenth poligar, appears to have been an ambitious ruler, for he ravaged the districts of Kólár, Úskóta, Báramahál, Ambúr, Sátghur, Bétamangalam, Táyellúr, and Javádipáliam, and exacted large sums of money from the people. His conduct attracted the attention of Abdul Nabbas Khán, Nabob of Cuddapah, who resumed Táyellúr and Bétamangalam, and besieged the poligar in Kangundi durgam for three months, after which time he forced him to make terms.

Varamúrti Naidu's son, Venkatapati Naidu, attempted to follow his father's example, and seized Bétamangalam once more; but Názir Jang approaching in 1750, he was obliged to retreat and was subsequently chastised by Abdul Mozid Khán, the Cuddapah Nabob, for his contumacy. Kangundi drúg was again besieged and reduced after three months, the poligar consenting to pay tribute to Cuddapah.

Vírappa Naidu, the eighteenth poligar, being of an indolent nature, gave the management of the estate to a Bráhman minister, Chinnayya, with whom at last he quarrelled. The minister

appealed to Hyder, who willingly espoused his cause, seized the poligar and his family, and made them prisoners in Seringapatam. Chinnayya then obtained the recognition of the youngest brother, Vírappa Naidu, as poligar since he was a minor, and the second brother Venkatapati he committed to prison. The minor Venkatagiri Naidu died at Arcot while attending the Mysore army with his spearmen, and was succeeded by Sítappa Naidu, a member of the family, but belonging to a younger branch. The conduct of the Bráhmans, who had usurped all power in the estate, naturally caused much disaffection and led to many intrigues. The gurrikas, or chief men in the pálaiyam, obtained the aid of the Fouzdár of Kólár, and marching to Kangundi took possession of the drúg, killed two of the Bráhmans, imprisoned a third, and liberated Venkatapati Naidu, the rightful heir to the estate, who was made poligar. Plots against him were soon formed, and the intriguers killed or deprived of their eyes. Tippoo, hearing of the poligar's conduct, and probably displeased at the non-payment of peshkash, placed a garrison in Kangundi and expelled Venkatapati, who sought refuge in the Carnatic. During the third Mysore war he regained possession, but abandoned the management of affairs to an uncle, Timma Naidu, who appears to have been his evil genius. After pillaging Kólár and other districts, the Kangundi peons fired upon a party of the Company's troops under Lieutenant Ireton and killed two sepoys, which led to the expulsion of Timma Naidu by Captain Reade, who reported the poligar to be "worse than any other in the country." For re-entertaining Timma Naidu his fort was in 1792 seized by the Company, and he was called upon to pay a fine of Rs. 20,000 to be divided among the people who had suffered at his hands, on pain of being personally confined. In 1794 he had paid up Rs. 50,000, and liquidated his arrears of peshkash. Shortly afterwards the pálaiyam was handed over to the poligar "on account of his good conduct."

The zemindári was taken under the management of the Court of Wards in April 1883 and remained in their charge until 1890. The present zemindar is Subbaráju Náyanivári; he succeeded his brother, who died without issue in 1891. The zemindar is of the Védan caste.

A portion of the zemindári, consisting of eleven villages, is practically a separate estate and the peshkash on it is paid independently. The present proprietrix is a minor, named Timmájammál, and the estate is under the management of the Court of Wards. Timmájammál is the daughter of Venkata Rámappa Naidu, an illegitimate son of the present zemindar's grandfather. In the year 1876 he claimed the whole zemindári and instituted a suit in the District Court of Chittoor. The suit was, however, compromised on the

CHAP. XIX. KANGUNDI.

History.

th n zemindar agreeing to give up one-third of the estate. Rámappa died before the agreement was carried out, but in 1882 his widow, Mádammál, received twelve villages, yielding an income of Rs. 5,000 per annum, Rs. 2,000 being for herself and Rs. 3,000 for her minor daughter. One of these villages was alienated and Timmájammál, who succeeded to her mother's share on the latter's death in 1885, is now in possession of the remaining eleven. The total income of this sub-estate is about Rs. 11,000, and the peshkash payable is Rs. 1,344.

Administration.

The zemindári lies in the Sub-Collector's division. The chief local magisterial officer is the sub-magistrate (salary Rs. 120). He is also in charge of the revenue administration, the chief business in this direction being the collection of the income-tax. The taluk forms a single police division under an inspector and is divided into four police station charges. In respect to civil actions it is situated within the jurisdiction of the district munsif of Vellore. The number of villages is 319, of which fifty-five are uninhabited. The larger villages, which are mostly found on the northern border, show signs of having been fortified.

Population.

The population in 1891 was 54,052, of whom 26,906 were males and 27,146 females. Hindus number 52,281, Musalmans 1,748 and Christians 23. The population has increased by 19·63 per cent. since 1881, and there are now 156 persons to the square mile. The number of occupied houses is 10,960 and there are on an average 4·93 inmates to each house. Of the male population 92·18 per cent. are illiterate, 6·12 per cent. can read and write and 1·70 per cent. are learning. Of the females 99·78 per cent. are illiterate. Telugu is the mother-tongue of 24,983 persons, Tamil that of 16,751, Canarese that of 10,247 and Hindustani that of 1,684. Classified by means of subsistence, the population consists of 36,557 landholders and tenants, 5,010 agricultural labourers, 1,914 general labourers, 3,257 traders, 181 weavers, 2,114 other artisans, and 5,019 'others.'

The land.

The land revenue is about Rs. 1,10,000, and an annual income of about Rs 38,000 is obtained from other sources. The peshkash is Rs 21,589, or including that on the alienated villages, Rs. 22,937.

The soil is generally a somewhat poor gravelly loam, but the quality improves in the north-east parts near the Palmanér borders. Though an assessment of the land was made in 1805, it was very excessive and has never been acted upon. The former practice was to lease villages, generally to one or two wealthy ryots, for a term of years, leaving the renters to make their own terms with the cultivators. The present zemindar, however, has begun to abandon this somewhat objectionable system in favour of leases with the actual cultivators. It is generally asserted that the tenants have

The land.

no occupancy right. Complete information as to the rates of assessment is not available, but the returns of the Court of Wards show that the average for lands held direct from the zemindar was about Rs. 2 for dry and Rs. 5 for wet lands. These are decidedly high rates for land of such poor quality as is found in Kangundi, and the condition of the tenants compares unfavourably with that of neighbouring Government ryots.

The sources of irrigation are chiefly tanks, which are generally large and excellently built. Wells are infrequent and spring channels unknown. The Court of Wards spent Rs. 36,382 on irrigation works during the time the estate was under its management.

Products.

The auriferous quartz reefs of the Kólár gold fields run into Kangundi, and mining has recently been commenced. Old native workings exist at Bisanattam, Attinattam, Malapankonda, &c., but unfortunately the field begins to split up just where it enters the zemindári and it yet remains to be seen whether gold mining can be carried on at a profit. Lime, building stones and iron are the only other mineral products, and the last named is not utilized. Almost the only industry is agriculture. A good deal of jaggery is made and a large factory was established some years ago at Vijialápuram, but it failed. The Kurubas breed excellent sheep and weave cumblies. Others devote some attention to raising Mysore bullocks, and Kangundi used once to furnish animals for use in the artillery. The fame of the Kangundi cattle is, however, declining, though large extents of pasture ground, called *kúragam*, are still set apart for grazing purposes.

Kuppam: Population 3,405. Union under District Boards' Act; head-quarters of sub-magistrate and police inspector; police station; post office; railway station with telegraph office; dispensary; registration office; travellers' bungalow belongs to the zemindar and can be used only with his permission. Kuppam is a clean and prosperous village, with a busy bazaar and a large trading population. The height of the railway station is 2,238 feet above sea-level. Kuppam itself lies to the north of the line and is largely inhabited by Vániyans or oil-pressers, while in the suburb of Kottapet to the south of the railway most of the residents are Musalman traders. A largely attended market is held here once a week, and the place promises to become a thriving little town. The zemindar now generally lives in Kuppam, as Kangundi is feverish and unhealthy.

Kangundi was once the chief place in the neighbourhood, but has become almost depopulated by fever, cholera, and famine and now contains only 652 inhabitants; police station. The village lies at the foot of a very precipitous hill, which is fortified and must have been a place of great strength, much care having been

CHAP. XIX. KANGUNDI.

Places of interest.

expended in the fortifications, now greatly dilapidated. The hill is ascended by a flight of steps which are in bad order. Half way up is a cave filled with the bones and horns of cattle. An old rusty cannon, evidently of native manufacture, still remains in the fort.

There is here a temple of Kálika, who is the family goddess of the zemindars of Kangundi. The goddess, it is said, was introduced when the zemindar's ancestors first settled here, and a large festival is held annually in her honour by the zemindar and his family.

Rállabudugúr is a large village on the western border with a population of 1,015. Its temple, dedicated to Gópálurámaswámi, is curious from its pillars, which are 30 feet high. An annual cattle fair is held in this place, and large numbers of the Mysore breed of bullocks are offered for sale.

Vijialápuram is another large and thriving agricultural village, 5 miles north of Kangundi. It has some large tanks and two big temples, and exhibits a well-to-do appearance.

Gónagóru, situated on the south-west, though a small village (population 738), is regarded as rather a sacred place in these parts. It was originally the head-quarters of the poligars, and traces of their original hill fort still remain. The hill is called Bétraya-swámi-konda, and forms a noticeable feature in the landscape to the south-west of Kuppam.

Krishnápuram: A small village with a police station near the northern boundary. Population 414. It is situated on the Venkatagirikóta road, and there is a small bungalow, out of repair, at the spot where the road crosses the Pálár.

Timmápet: Population 1,002; police station. This village is situated at the foot of the gháts below Kangundi, a few miles from Vániyambádi railway station.

KÁRVETNAGAR ZEMINDÁRI.

KÁRVETNAGAR.

General description.

To readers of Orme this estate is known as 'Bommarázu's country,' Bommarázu being the poligar at the time of the early Carnatic wars.

The zemindári is bounded on the north by Chendragiri and Kálahasti; on the east by Chingleput; on the south by Wálájá; and on the west by Chittoor. It has an area of 943 square miles.

Hills.

The whole of the estate is hilly, except the south-east. The western hills are bare and rocky like the rest of the gneissic ranges, but the Nagari hills, which are of quartzite and run along the east, are in parts covered with jungle hardly inferior to that of the west

of Chendragiri. Between the gneiss and quartzite hills passes the valley traversed by the north-west line of the Madras railway. The most prominent feature of the Nagari range is Nagari Nose, 2,825 feet above the sea; it forms the summit of a small range, which rises gradually from the east and then terminates in a sheer precipice about 200 feet high, up to the base of which the ground from the west rises. It thus presents an appearance resembling a human nose, and is not only a land-mark in the district, but also for ships at sea when coming to Madras from the northern ports. It stands 50 miles from the coast, but is the first piece of land sighted. There is much bamboo growing at the foot of the wall-like precipices of the hills on their western side, and the numerous ravines or 'kónas' which run up into the hills are well wooded and fairly stocked with game. Some of these kónas are particularly pretty, one of the most charming being the Sadásiva kóna, which is about 10 miles north-east of the Puttúr station. Here a perennial stream flows to the east, having a succession of waterfalls and cascades, by the sides of which ferns grow in profusion. Tree ferns are here plentiful, and about a dozen varieties, including creeping ferns, are to be found. Other picturesque glens are the Kailása kóna, Panasu kóna (both near Nagari Nose), Ammavára kóna (near Sadásiva kóna), Múla kóna, and Narasimha kóna. At each of these there are a flowing stream, thick forest, and a small rude temple. Annual feasts are celebrated in honour of various deities or rishis who once frequented these picturesque retreats.

Hills.

Three principal rivers drain Kárvetnagar, and are generally named after the towns of Náráyanavanam, Nagari, and Tiruttani, by which they flow. The local name for the Náráyanavanam river is the Arunánadi, and for that of Nagari the Kuchastali, or 'darbha grass river.' All three flow to the east, the two first through gaps in the Nagari range. They are dry except during the rains, but have excellent springs.

Rivers.

The soils are rich loams and red clays and are among the best, if not quite the best, in the district. In spite of the somewhat uncertain title of the ryot, the dry lands of Kárvetnagar sell for higher prices on an average than those of any Government taluk, owing to their superior fertility.

Soil.

The extent of forest in the zemindári is considerable, and though much of it has been ruthlessly felled to supply engine fuel and for exportation, there is still a good deal left. The principal trees are the red sanders (*Pterocarpus marsupium*), mango (*Mangifera Indica*), nallamadu (*Avicennia tomentosa*) and most of the commoner trees of the forests of the east coast. Though there is no forest in the west, the hills are covered with scrub jungle, useful for fuel, which is exported into Wálájá, and also sent by rail to Madras.

Forests.

CHAP. XIX. KÁRVETNAGAR.

The north-west line of the Madras railway runs right through the zemindári from south to north. The stations are at Tiruttani, Ponpádi, Nagari, Vépagunta, Puttúr and Púdi.

Communications.

There are about 140 miles of road in the zemindári, the most important highways being as follows :—

(1) The Cuddapah trunk road, which enters the zemindári in the south-east from Tiruvallúr and passing by Nagari railway station runs parallel with the line to the northern boundary of the estate, and thence to Rénigunta and the Cuddapah frontier;

(2) From Sholinghur, through Pallipat, to Kárvetnagar;

(3) From Kárvetnagar, through Puttúr and Náráyanavanam to Nágalápuram.

(4) From Nagari, through Pallipat, to Chittoor;

(5) From Nagari to Nágalápuram; and

(6) From Tiruttani to Arkonam.

The estate is indeed well provided with roads, but a short length to connect Nagari and Tiruttani is much wanted.

History.

The present zemindar, who enjoys the hereditary title of Rájá, was born in 1856 and succeeded his father in June 1884. The estate was heavily involved at his accession to the property and matters have grown worse rather than better of late years. These embarrassments are not of recent date, for so far back as 1846 there was a debt of nine lakhs, and the Civil Court, after attaching the zemindári, ordered its sale. The Collector was authorized to buy it in if he could get it at a reasonable price, but meanwhile the zemindar made terms with his creditors and the sale was countermanded by the Judge. The Collector, however, maintained that the appointment of a manager by the zemindar, which was one of the conditions of the compromise, was invalid, since he had not approved of it. He, therefore, carried out the sale and knocked the estate down to Government for Rs. 1,60,000! Eventually it was handed over to the zemindar. The estate, or portions of it, have been attached at various times since then, but it still remains in the nominal possession of the Rájá, though the rents are received and the land administered by the mortgagees. The two largest of these are the Mahant of Tirupati, who holds the Tiruttani taluk, and a wealthy money-lender of Madras. In 1881 the encumbrances amounted to about 42 lakhs and they are now said to have reached 70 or 80 lakhs. Several Collectors have proposed that the Government should advance the money to clear off the debts and retain the management of the zemindári until the loan was repaid, but these recommendations have not been accepted.

The family belongs to the Rázu caste, and plumes itself upon being of pure Kshatriya descent. About the close of the

seventeenth or beginning of the eighteenth century Geddi Mákharázu and Bopparázu, two young men belonging to a powerful Rázu family in the Northern Circars, set out suitably attended to visit Rámêswaram and other celebrated shrines of Southern India. After visiting Tirupati they halted at the village of Maddigunta, where, during the night, a body of freebooters attempted to loot the village, but were attacked and utterly defeated by the Rázus. At that time the estate was in the possession of a Reddi family,[1]

CHAP. XIX. KÁRVETNAGAR. History.

[1] In an article entitled Numismatic Gleanings (*Madras Journal of Literature and Science*, No. 7, new series, p. 96) Sir Walter Elliot writes as follows :—

"It appears from a local history of some merit that the ancient possessors of "the Nagaram districts were a family of Sálva Reddis, who migrated with their "tribe from the neighbourhood of Pit'hapur, in the delta of the Gódávari, to the "country at the base of the Nagari Hills about the eighth or ninth century.

"One of them, named Sálva Narasá Reddi, obtained the favour of the "Chálukya King, Vimaláditya, by his skill as an athlete, and was appointed "chief of the country of Séshâchalam, or Tripati (where he founded a town called "Narasápuram) with permission to use the royal seal, and boar signet. This was "in the year S.S. 852 (A.D. 930). During the troubles which followed Vimalá-"ditya's reign and ended in establishing the ascendancy of the Chólas, his "grandson, S. Venkatapathi Náyudu, was dispossessed, but his son, S. Bhíma "Náyudu, recovered his patrimony in S.S. 898, and built the town of Ratnapuram, "now called Kempula pálem where he founded a temple to Varáha-swámi in honour "of the Chálukya family.

"A successful expedition into the Carnatic by Kírtti Varma, the Chéra King of "Malabar, about the year S.S. 930, in which the Sálva chief sided with the "invader, enabled his son Narasimha, a man of ability and enterprize, to assume "independence, which he maintained successfully for 35 years to S.S. 979 (A.D. "1057). His possessions extended along the base of the mountains, over the "breadth of the Carnatic Bálaghát from the neighbourhood of Vellore to the sea, "including the three sacred places of Ghatikáchalam (Sholinghur), Séshâchalam "(Tripati), and Kshani káchalam (Tirutani). He surveyed and assessed the "whole of the lands within this space, reformed the weights and measures accord-"ing to the Sálva standard, so called after his own family name, and caused them "all to be stamped with the figure of the boar. Although his son S. Bhujanga "Náyudu was reduced to subjection by the western Chálukya King, Sóméswara "Dêva, and was carried away a prisoner to Kalyán where he died, these institu-"tions were preserved and have remained up to the present time.

"Bhujanga Náyudu's grandson recovered his paternal estate in S.S. 999 "(A.D. 1077). They were again curtailed to 24 villages by Raja Raja Déva "Chola II in S.S. 1152 (A.D. 1230). But during the next four generations, the "decaying power of the Cholas enabled the Sálva family to regain its indepen-"dence, which was strengthened by the marriage in S.S. 1236 of S. Narasa Náyudu "with the daughter of Pralaya Reddi, the founder of the Véma Reddi dynasty of "Kondavid in Guntoor.

"The family now fell under the rule of the rising empire of Bijanagar, to "which the Sálvas continued subject for about 150 or 200 years, when the last of "the race was expelled or superseded by the progenitors of the present Bomma "Rája Zemindar. Sálva Séshâchala Reddi, the then head of the family being "without heirs, stipulated only that the annual festivals at Náráyanavaram and "Tripati should be conducted in the name of the Sálvas, since which time the "new family have assumed the titles of Srímán Rájádhirája, Sálva-Katári-mahá-"rája, &c., and, with insignia of the Sálva family, have maintained undisturbed "the rules and institutions established by their predecessors."

CHAP. XIX. KÁRVETNAGAR. History.

and the reigning poligar, Sálava Reddi, hearing of what had happened, sent for Mákharázu and Bopparázu and questioned them regarding their family and plans. Their demeanour pleased him so much that he persuaded them to abandon the completion of their pilgrimage and to take service under him. Mákharázu soon became his prime minister, and when death carried off Sálava Reddi without leaving issue, his wives committed sati, and Mákharázu took possession of the pálaiyam, obtained a sanad from the nabob, and appointed Bopparázu his prime minister. The name of Sálava has ever since been included by the zemindars among their various titles, and the two families, continuously intermarrying, have kept themselves aloof from the other Rázus of the neighbourhood. The post of prime minister continued for many years to be hereditary in the line of Bopparázu, and as a petition to the Collector in 1818 describes it, "the two families lived as a united family, and harmony "of peace choosed it as its abode." For the last fifty or sixty years this excellent arrangement has ceased, and the managers of the estate have often been persons without any personal interest in the prosperity of the zemindar.

In the eighteenth century a considerable addition to the estate was made. The story goes that when the daughter of Muhammad Ali was travelling from Hyderabad to Madras to visit her father, she halted at the village of Illattúr, east of Nagari. One Báli Naidu, a petty poligar of Bálinaidupáliam, hearing that she was well favoured, seized the princess and carried her off to his fort. Upon being released, she hastened in great indignation to her father and made her complaint. As all the poligars of the neighbourhood had at various times been insubordinate, the nabob invited Kálahasti and Kárvetnagar to conquer them and annex their estates. A battle was fought at Nattéri on the east, and the poligars were routed. Half of the pálaiyams were taken by Kárvetnagar and half by Kálahasti, one, Vélúrpálaiyam in the Wálájá taluk, being given to Ráyóji for the expenses of his nowbut. Three other pálaiyams, named the Chellama, Amidála, and Mattavalam pálaiyams, on the west of the estate, were at or about this time also annexed.

Population.

The population in 1891 was 328,697, of whom 167,292 were males and 161,405 females. Hindús number 323,868, Musalmans 4,700 and Christians 123. The population has increased by 19·17 per cent. since 1881 and there are now 349 persons to the square mile. The number of occupied houses is 51,005 and there are on an average 6·44 inmates to each house. Of the male population 87·40 per cent. are illiterate, 9·64 per cent. can read and write and 2·96 per cent. are learning. Of the females 99·67 per cent. are illiterate. Telugu is the mother-tongue of 180,875 persons, Tamil

CHAP. XIX. KÁRVETNAGAR. Population.

that of 141,593 and Hindustani that of 4,621. Classified by means of subsistence the population consists of 187,104 landholders and tenants, 50,181 agricultural labourers, 20,888 general labourers, 21,849 traders, 12,945 weavers, 13,116 other artisans, and 22,614 'others.'

Administration.

The zemindári lies in the Head Assistant Collector's division. It comprises the revenue divisions of Puttúr and Tiruttani, in each of which the chief local magisterial officer is the sub-magistrate (salary Rs. 120). This officer also attends to the revenue work of the division which is very light, the only important business being the assessment and collection of the income-tax. Each of the above divisions constitutes a separate single police division under an inspector. Puttúr is divided into seven police station charges and Tiruttani into five. In respect to civil actions, the former is situated within the jurisdiction of the district munsif of Tirupati, while the latter forms part of the jurisdiction of the district munsif of Sholinghur. Puttúr contains 404 villages, of which 341 are inhabited. In Tiruttani there are 389 villages, of which all but 60 are inhabited. Of the total number 10 are inám villages.

The zemindar divides his estate into three taluks, Tiruttani, Pallipat and Náráyanavanam.

The land.

As in the case of Kálahasti there is much uncertainty as to the statistics of cultivation; the area under the plough is said to be 132,000 acres, but it is probably not less than 150,000 acres. A relatively large proportion of this extent is under such valuable crops as sugar-cane, indigo and oil-seeds.

Manure is plentiful and freely used by the ryots, who are hardworking and intelligent, mostly Rázus in the north and Kammas in the south; good farmers both of them, who get magnificent crops out of the ground, and are in very good circumstances although the assessments are high. They vary from village to village, and depend upon the crop raised. The rates in one large village, Nagari, may be taken as a specimen:

	RS.	A.	P.	
1st-class wet for sambá paddy =	4	3	6	+ 1,600 lb. of paddy per acre.
Do. do. kár do. =	3	12	0	+ 1,225 do. do. do.
2nd-class do. sambá do. =	3	12	0	+ 1,225 do. do. do.
3rd class do. do. do. =	3	4	6	+ 1,100 do. do. do.
4th-class do. do. do. =	3	4	6	+ 850 do. do. do.
5th-class do. do. do. =	2	13	0	+ 600 do. do. do.
Topes .. .. .. =	13	9	6	per acre.
Plantains ... . =	15	12	0	do.
Chillies .. .. .. =	11	12	0	do.
Ground-nuts .. .. =	8	8	0	do.
Cocoanuts .. .. .. =	15	0	0	do.

CHAP. XIX.

KÁRVETNAGAR.

—

The land.

		Rs.	A.	P.	
1st-class dry land for indigo	=	4	8	0	per acre.
2nd-class do. do.	=	3	12	0	do.
1st-class do. cumbu or ragi	=	4	4	0	do.
2nd-class do. varagu ..	=	2	8	0	do.
Do. do. gram and ground nuts	=	1	2	0	do.

The rates are fixed at so much a gunta, 18 guntas of wet and 16 guntas of dry land going to an acre. Sometimes cowles on favourable terms are given, only three-fourths of the assessment being demanded, or sometimes as little as one-eighth. The whole subject is in the utterest confusion; there is no uniform principle followed, and the constant disputes between the mortgagees and the tenants lead to suits under Act VIII of 1865, which occupy much of the divisional officer's time.

The ryots assert that they have an occupancy right; the zemindar and his alienees (especially the latter) deny it; and the courts can apparently lay down no general rule. Thus every attempt to enhance rent is resisted by the ryots and invariably leads to a suit. Litigation of this kind, however, is fairly cheap, and it is clear from the prices realized for land that, *de facto* if not *de jure*, a ryot has a very substantial interest in his holding and that he can transfer it.

Properly administered, Kárvetnagar should produce at least twelve lakhs a year, but the amount actually received from the land is said to be only Rs. 9,44,000, while the income from other sources is put at Rs. 18,000. The peshkash is Rs. 1,73,911 and the cesses amount to Rs. 43,113.

No information can be obtained regarding the sources of irrigation. Almost all the tanks are in bad order, little being spent in repairing them. They are constantly breaching, and as often patched up by the ryots. The largest is that of Ráyalcheruvu in the north-west, which has an ayacut of 1,600 acres and yields a revenue of Rs. 20,000.

Products.

Iron is found in many places, but is only worked near Pátagunta. Lime and granite are plentiful and of excellent quality. The chief manufacture is weaving, which is carried on in the south by Kaikólans, and in the north by Sálias, both of whom only manufacture the ordinary male and female clothing of the country. The principal weaving villages are Náráyanavanam, Pálamangalam, Ammavárikuppam, Sorakáyapéta and Vanganúr. At Nésanúr, in the Náráyanavanam division, many bamboo mats, baskets, winnows, &c., are made, and at Satraváda brazen utensils. At Agúr, near Tiruttani, a peculiar manufacture is carried on by one

man. It consists in the cutting of goglets, tumblers, &c., out of a dark stone called 'Maddúr silai,' which is quarried at the base of a hill near Maddúr, 10 miles distant from Tiruttani. The mason is known as the Agúr Stapati, and is in such independent circumstances that he only works as a favour for friends or officials, and has no fixed charge for his wares, though he is not above accepting a present. The stone is both turned in a lathe and chiselled; idols and representations of animals are skilfully cut by him when he chooses, which is not often. No other artificer can approach him in skill, though several masons work in the Maddúr stone.

Kárvétinagram or *Kárvetnagar* is a large place, having a population of 6,046 and has long been the residence of the zemindars. Post office and police station. It is named after Kárvétirázu, the son of the celebrated Bommarázu. The latter founded Bommarázupáliam, a village close to Kárvetnagar, and lived there; but his son preferred the site of the present town, where, the local history narrates, he was pursued, while hunting, by a tiger, and was rescued by a hare, which attacked and drove off the beast. Bommarázupáliam is now in ruins. It had two temples, one of Siva and one of Vishnu; the idol of the latter was moved to the new settlement, but Kárvétirázu was warned in a dream not to meddle with the other, and it is still worshipped in the deserted village.

The town is 7 miles west of Puttúr, from which place a road runs to it over a steep ghát. It is therefore on high ground, and being surrounded by hills and jungles is a very feverish place. Formerly it was strongly fortified and surrounded by a broad wall 8 feet high, having two gates, one on the south and one on the east. The southern approach was defended by four barriers and a redoubt, and the eastern by six barriers, all built of stone. Only traces of these works now remain. There is nothing very interesting about Kárvetnagar. The chief building is the zemindar's palace, an imposing edifice of quite modern construction. On one side of the palace is a large gunta dug by the late zemindar during the famine of 1866, and deepened during that of 1877. On account of its unhealthiness Kárvetnagar is not a favourite residence with natives. About 3 miles to the south-east of the town is an old hill fort called Mákharázdrúg, of small size and no strength, built by Mákharázu, the first zemindar of the present family, as a suitable place of retreat for his zenána in time of war. It is surrounded by difficult country, and has the ruins of several buildings upon the top of the hill.

Náráyanavanam: Population 4,410; post office; railway station, &c., at Puttúr. This is one of the most ancient places in North Arcot, situated on the banks of the Arunánadi 3 miles east

CHAP. XIX. KÁRVETNAGAR. — Places of interest.

of Puttúr. It lies at the base of the Nagari hills, in the gap through which the river flows to Nágalápuram. The scenery in the neighbourhood is very bold, and the hills well stocked with game.

As its name implies, the site of Náráyanavanam is believed to stand in what was once a forest much frequented by Vishnu. The *genius loci* is one Ákásarázu, an ancient king of the country. His capital was called Ákasarájapuram or Náráyanapuri, which is 3 miles south of the present town, where are the remains of two old forts standing on either side of the river. The southern fort is known as the Ákásarázukóta, and has a very ancient temple dedicated to Agattéswara, or 'Siva of the moat,' situated close to it.[5] The northern fortress stood within the limits of the village of Kempulapáliam.

All traditions agree in stating that Náráyanavanam was a very important place in the olden time. It must have been one of the Kurumba strongholds, which fell into the hands of Ádondai. A local manuscript states that this king was here succeeded by his lineal descendants Sundama Rájá, Surasira Rájá, and Náráyana Rájá. In Mithila lived a king named Góvasambana Rájá, who visited Tirupati and prayed the god to allow him to rule over the surrounding country. He was referred to Náráyana Rájá, great-grandson of Tondaimán Chakravarti, who gave him half his kingdom, with Náráyanavanam as its capital. Góvasambana Rájá had four sons, Venkata Rájá, Ubajala Rájá, Ákása Rájá, and Mitravarma Rájá. The son of the last, Ákása Rájá, obtained the kingdom, and his daughter married the Tirupati god. His son Vasambana Rájá being childless, the kingdom went to his uncle Venkata Rájá, who was succeeded lineally by Sundu Rájá, Akana-

---

[5] In the article already quoted Sir Walter Elliot writes—

"The traditions relative to the prevalence of the Chálukya influence in this "tract, are confirmed by inscriptions extant in the temple of Agastíswara Swámi "in Náráyanavaram, the principal town of the district. One of these records a "grant to the temple, of the village of Vikrama-tángal, *alias* Chálukya-puram, by "Nága-déva of Vélárpákkam, who had received it with others in reward for "services rendered to the general of the Chálukya forces, in an engagement "with the enemy then occupying the Pótappinádu (or Kálastri) country. This "was made in S.S. 826, in the 11th year of the reign of Kulót-tunga Chóla (pro-"bably Rájéndra Chóla). [This date must be wrong if the name of the king is "correct.—Ed.]

"Another inscription in the temple of Parásara, in the same town, records "the gift of the village of Kandyan by one Pallava Ráya, who had received it "from Nágadéva, the lord of Pótappinádu, in the 13th year of Uttama Chóla, or "S.S. 1027.

"A third, in the temple of Agastíswara Swámi, contains a royal grant of "certain lands to the temple, in the 6th year of Tribhuvana Malla Déva, with "the titles of Sarvalókásraya, the ornament of the Satyásraya Kula, con-"spicuous among the Chálukyas, &c., in S.S. 1078 corresponding with A.D. 1151."

sana Rájá, Parákruti Rájá, Adrika Rájá, Malatha Rájá, Vikata Rájá, and Ribanáda Rájá. In the days of the last named the kingdom was conquered and the Rámarája Rája dynasty followed.

Places of interest.

What dynasty this was seems uncertain, but it is known that at Náráyanavanam 11 kings of the Yádava line ruled, being perhaps Kurumbas who succeeded in recovering a portion of their lost territory. They gave way to the Vijayanagar kings. The legend narrated of Ákásarázu, the adoptive father of Padmávati, the wife of Venkatéswaraswámi of Tirupati, is this. Being without issue, he resolved to perform a 'putra káméshti yágam' in conformity with the rules of the sástras, and while ploughing with a golden plough the land now covered by the waterspread of the big drinking tank west of Náráyanavanam, he turned up a golden lotus, in the petals of which lay a most beautiful golden-hued female infant. Carrying her to his wise men, the rájá learned that the child was the incarnation of Lakshmi, and he therefore had her nurtured with care and brought her up as his daughter, calling her Padmávati, 'the lotus born.' He performed his yágam and begot a son. After Padmávati had grown up, Venkatéswaraswámi of Tirupati came hunting in the forest and fell desperately in love with her. Negotiations were completed, and money for the marriage being borrowed from Kubéra, it was celebrated at Náráyanavanam with great pomp. At Ákásarázu's request the swámi consented to reside at Náráyanavanam, and a temple was built for him and his consort, where he is worshipped as Kalliána Venkatéswara, or Venkatéswara married.

Kempulapáliam is a small village about 3½ miles north-east of Náráyanavanam. It contains a temple which enjoys a greater repute than most others in this part of the country. It is dedicated to Amanáyákshiambá, or 'her whose eyes are the védas,' also called Mahishásuramardani, or the slaughterer of the rákshasas, and she is one of the four furies (saktis) who sprung from Bramha's yágam at Conjeeveram and were sent by him to guard the four quarters at Mahábalipuram (the Seven Pagodas), Dévikápuram (in Arni), Virinchipuram (in Vellore), and Náráyanavanam. The idol, the length of whose foot is the standard of measurement in this zemindári, is a most terrible looking female figure, about 8 feet high, perfectly nude, but with a garland of heads of rákshasas modestly arranged around her waist. She has eight hands, holding a cup of blood, a buckler, and various weapons, and with her foot she tramples upon the prostrate form of Sómakásuran, one of the rákshasas. The pújáris affirm that a golden-coloured snake visits the sakti every Friday, but it is invisible and only makes its presence known by emitting a fragrant odour. The great feast continues during 15 days in Ávani (June-July), but the chief

CHAP. XIX. KÁRVETNAGAR. Places of interest.

days are the last eight, during which a small representation of the goddess is carried about the villages. On the twelfth day, Tuesday, the Kammálas and Ékaris disguise themselves and pretend to fight with a rákshasa, whose head they eventually bring and lay at the goddess's feet. In the evening a he-buffalo is slain by a Pariah opposite to the temple and in front of the goddess. Some of its blood is sprinkled over a huge pile of food, which is then scattered about the temple. The buffalo is buried in a pit close by, which contains the remains of the victim of the previous year. The pit is opened with much ceremony at daybreak, and the remains of the previous year's victim are sent to the zemindar, as their appearance is supposed to foretell the nature of the succeeding season. The bones and flesh are always found to have decayed, but the contents of the stomach remain. If it looks fresh the year will be prosperous; if decomposed, the crops will be bad; and if a coating of white has formed, epidemic disease will be common. The explanation seems to be this. The chances are that a wet season will be followed by a dry one, and *vice versâ*. During damp weather the dung rapidly decomposes, but remains unaltered during a dry year. Where the matter, therefore, has lain for a year in dry soil and is fresh, the chances are that the following season will produce good rain. The zemindar has a great respect for the sakti, and vast crowds attend the feast, sacrificing sheep, goats, and fowls. On the following Thursday the Kaikólas have a great festival, prancing about on hobby horses and enacting a fight which their ancestors are said once to have had with a Vellála king who lived in the bed of the Viránam tank of the Wálájá taluk. Amanáyákshiambá then assisted them in overcoming this potentate, who greatly oppressed them. The temple is by no means a fine one. It stands within the enclosure of the Ákásarázukóta.

Nagari: Population 3,196; police station; post office; railway station and telegraph office; travellers' bungalow; chatrams. Nagari lies about 5 miles south of Nagari Nose on the banks of the Kuchastali. It is a very busy trading town, visited by merchants from Madras for the purchase of rice, indigo, and ground-nuts. The rice raised in the neighbourhood is of a very superior quality, and said to be much appreciated by the Bráhmans of Madras. The town has the largest fair in the division, and a most commodious choultry. The houses are well built, but laid out in a straggling fashion. Nagari was once a city more than a mile in diameter, and therefore obtained its name, which signifies 'the city.' The sakti temple (Désamma's) is now a mile to the west, and as sakti temples were always built within the circuit of a town, Nagari must have extended that distance from west to east. Kásivisvanádha-

Places of interest.

swámi's shrine, now destroyed but formerly standing on the banks of the river, was also within the town, as was the Sámalamma tippa on the north. Ryots when ploughing still turn up small household idols, and in digging have come across backyard wells that have become filled with rubbish. All these facts, with others, go to corroborate the local belief that the place was formerly large and prosperous. Its surviving temple, Karakantéswara's, is believed to have been built by Janaméjaya Mahárájá, vaguely described as having lived before Ákásarázu's time. In those early days the large Párvétimantapam, now outside the town on the north, was built to receive Agattéswara Swámi of Kempulapáliam when he made his annual circuit of the hills. As many as a hundred other local idols used to meet him there, in order to go hunting with him, but some years ago there was a dispute as to whether it was a Vishnu or Siva mantapam. The zemindar, Kárvétirázu, decided in favour of Siva, and now not more than 13 Siva idols come, and having saluted Agattéswara, go home again. Upon a large flat rock in the middle of the bed of the river is a long inscription, which might, if deciphered, cast some light upon the history of the place; but it looks too clear to be very ancient.

Among the hills north of Nagari are some caves which, by means of rough stone walls, have been turned into habitable chambers, and the people ascribe the work as usual to the five Pándavas.

Four miles to the east of the town, on the banks of the river, is the village of Bugga Agraháram (bugga = a spring), where a copious spring of water rises within the temple, and escaping by five vents falls into the river. Four of these fail in times of excessive drought, but one is perennial. The water is believed to come from the Ganges, and the village to be as holy as Benares. Nagari Nose is also regarded as a very sacred spot, and has a Vignéswara temple on its summit. On each full-moon night a bonfire is kindled at the top of the Nose and early in January the local idols make their circuit of the hill, meeting, as has been said, at the Párvéti mantapam.

Puttúr: Population 2,686; police station; post office; railway station and telegraph office; dispensary; sub-registrar's office; travellers' bungalow; chatrams. Head-quarters of sub-magistrate and police inspector.

Puttúr, or the new village, is only of importance on account of its having a railway station, which serves Kárvetnagar and Náráyanavanam, and being the head-quarters of the deputy tahsildar and sub-magistrate of the division. A large proportion of the inhabitants are weavers. The streets are broad, regular, and cleanly, the houses good, and the village a prosperous looking one.

CHAP. XIX. KÁRVETNAGAR. Places of interest.

Ráyalcheruvu, or *Ráyalcheruvupetta* (population 383) is only noteworthy on account of its large tank, built, it is said, by Krishnadéva Ráyalu of Vijayanagar, whence the name of the village, 'the Ráyal's tank.' The bund is only half a mile long, resting upon two hills, but is 70 feet high and 120 feet broad. A story is told in the village that when first built the tank leaked most persistently, and no remedy proved efficacious. It was revealed by a dream to Krishnadéva Ráyalu, that only a human victim, buried alive in the bund, would render it watertight. One of his daughters, learning this, offered herself, and being buried where the leak occurred, a perfect cure resulted. A similar story is told regarding the tank at Punganúr. The village was once of some importance, being on the road from Tirupati to Conjeeveram, but pilgrims now travel between these towns by rail. There is still a large choultry in Ráyalcheruvu, endowed by the zemindar with lands producing Rs. 7,000 a year, in which pilgrims are fed gratuitously, and the village also has a police station.

Tiruttani: Population 3,504; union under the District Boards' Act; head-quarters of sub-magistrate and police inspector of the division; police station; post office; railway station (height above sea-level 283·64 feet) and telegraph office; sub-registrar's office; chatrams. Tiruttani is a very sacred town in the south of the zemindári. It includes four villages, Tiruttani proper, Maṭhamgrámam, Nallanigunta, and Amurtapuram. Tiruttani proper is built to the south-east of the hill upon which the temple stands, and close to the railway line. It is the largest of the four settlements, and has, like the others, excellent houses. Maṭhamgrámam is the most holy village, and lies partly upon the hill and partly upon the comparatively level ground to the south of it. It derives its name from the large number of maṭhams, choultries, and mantapams which it contains. There are upwards of 60 mathams, 10 choultries, and 23 mantapams in it, all built originally for public use, though many have now been appropriated by individuals, and are used as private residences. Nallanigunta is also remarkable for its collection of maṭhams and mantapams, and lies to the east of Maṭhamgrámam, near a large drinking-water tank called the Aiyankulam. It takes its name from a square tank, constructed about 100 years ago by a Kaikólan named Nalladu. It is therefore of modern growth, as is Amurtapuram. This latter village is the farthest of the four to the west. It was, it is said, founded by Venkataperumálrázu, great-grandfather of the present zemindar, who once halted here much wearied, and being refreshed with milk and buttermilk, gave it its name, signifying the village of ambrosia. Much trade is carried on in these villages in grain and cloths during the festivals which occur once in every lunar month,

and are called the Nakshatra feasts. Large crowds collect at all of them, but more particularly in the months of Ádi, Kártiga, and Mási. Bramha-utsavams also take place for 10 days in Mási (February–March) and Chitri (April–May).

The temple stands upon a low range of hills and commands a good view of the surrounding country, except towards the south, where the outlook is blocked by higher hills. It is dedicated to Subramaniaswámi, with whom reside his two wives, Dévaséna and Valliammál. Its history narrates how Subramaniaswámi warred against certain rákshasas named Súrapadmásura, Simhavaktrásura, and Tárakásura, whom, after a valiant struggle, he overcame. He then enjoyed a grateful rest here, on which account it is called Tiruttani, or sacred repose. Indra out of gratitude gave him his daughter Dévaséna in marriage. The story of Valli has been told in connection with the Vallimalai temple in Chittoor. Here Valli is described as the daughter of Vishnu by Lakshmi, after the latter had been metamorphosed into a deer. The child was found by a Korava king of Spatikanagari on the Lovali hills (the present Vallimalai), and was called Valli because she resembled a creeper. Until a few years ago it was usual for devotees to cut off the tip of the tongue and present it as an offering to the idol, but the practice has been discouraged by threats of criminal prosecution, and an instance has not occurred lately. The tongue partly renews itself, and this is considered miraculous. It is asserted that the severed portion of the tongue, when dropped into milk, makes it boil over!

The ascent of the hill is by means of two flights of stone steps on the east and west. That on the east is flanked by numerous choultries, but the eastern ascent is too steep to admit of many buildings. It leads to the lower Mathamgrámam, a congeries of spacious choultries, mostly round a very fine tank surrounded by cut-stone steps. The Pandáram residents gain a livelihood by begging and keeping the choultries in order, for which pilgrims give them small presents. The streets are broad and flagged with granite stones. Many of them have a steep slope. Almost all the houses here are built of stone, which can be quarried close by.

One of the distinctive features of Tiruttani is its sacred pools of water, of which there are nine, called the Kumára, Bramha, Agastya, Indra, Vishnu, Nárada, Sésha, Ráma, and Saptarishi tírtams, each having a legend attached. In the temple itself is the holy Kailása tírtam. There are also nine separate lingams, with names corresponding with those of the nine pools given above.

On the south of the hill is a tope surrounding a pool called the Yédu Jonalu, or seven pools, around which are built the temples of the seven celebrated virgins and Vírabadraswámi.

CHAP. XIX.
KÁRVETNAGAR.
Places of interest.

There are many inscriptions on the Tiruttani temples, but few of them have yet been deciphered.

Pallipat: Population 1,312; police station; post office. This village was formerly a most important place, but it is now only remarkable for its agricultural industry, the lands in the neighbourhood being very rich and yielding excellent crops of sugar-cane. It is 23 miles to the north of Tiruttani, and on the banks of the Kuchastali. Once Pallipat was a large military station under the Muhammadans, and boasted a mint in which Pallipat pagodas were coined. Close to the town is Veligaram, considered a very sacred place, and said to be of great antiquity.

Tiruválangádu, or 'the sacred banyan forest,' is another very holy village in the Tiruttani division. It is 3 miles distant from the Chinnammápet railway station, in the south-east of the zemindári, and has a population of 1,855. Police station. The village consists of three broad and parallel streets. leading up to the front of the large and ancient temple, which alone makes the place of importance. Here Siva is worshipped under the name of Dévarasingapperumán, and his goddess under that of Bramarálakámbigá. The story goes that Párvati, pleased with the assistance rendered to her by Káli in the contest between herself and the monster Ruktabigan (who obtained from Bramha the privilege that every drop of blood shed by him should become a monster powerful as himself), bestowed upon the malignant goddess many gifts and blessings. Elated with these, Káli harried the country, killing and devouring all men and beasts that she met. At last she came to the banyan forest where she met the celebrated Nárada, who narrowly escaped her. Nárada complained to Siva, and the god visited the forest with his followers. Káli was persuaded to enter into a dancing contest with him, the penalty of defeat being submission to the successful competitor. Siva was of course successful, and Káli was ordered to reside quietly by the god's side in that locality, where the people erected a temple to accommodate the pair. Of the 64 places in which Siva is reputed to have danced, Tiruválangádu claims to rank first. The chief feast (Bramha-utsavam) takes place in Panguni (March–April), and in Márgali (December) the Árudra festival occurs. Both are largely attended, and the temple is also frequented by devotees throughout the year the goddess being supposed to have great power in curing ailments, granting male offspring, and the like. It is asserted that during the Árudra feast, when the idol, being taken in procession, reaches a particular spot in the town, a number of Bráhmani kites suddenly appear, and soar over it in circles always from left to right. There are 13 inscriptions in the temple.

Places of interest.

Kanakammachatram is a large trading village not far from Tiruválangádu, upon the old trunk road which led from Tiruvallúr to Tiruttani. This used to be much frequented by travellers from Madras, but has long been abandoned, and the village has doubtless declined in consequence. It is a modern place, which has sprung up around a large choultry built by one Rámabadra Naidu, Poligar of Chinnanaidupáliam, for the convenience of the numerous travellers who passed along the road. His mother Kanakamma had intended to construct the building, but died before doing so, and he attached her name to it and had food distributed free of charge. The charity ceased, probably when the pálaiyam was wrested from the poligar by the Kárvetnagar zemindar, but has of late years been continued on a smaller scale by the Kómati community, which has taken possession of the place. They form the bulk of the population, and are in affluent circumstances, buying up the agricultural produce of the surrounding country and exporting it to Madras. The village has a post office and police station. It is not a separate village, but a hamlet of Nekkampéta and the population of the two is 728.

Rámakrishnamahárájupet is a village about 11 miles from Tiruttani and about 3 from Sholinghur. It is nominally a hamlet of Chellattúr and the total population is 1,015. A fair trade is carried on in grain and cloths which are largely woven here.

Arungulam: Population 2,074; is a flourishing village 8 miles east of Tiruttani. It has a Jain temple of great repute, dedicated to Dharmaságara Swámi, the fifteenth tírtankara, though Parsavanádha Swámi, the twenty-third tírtankara, is also worshipped. There is a remarkable stone in the village bearing unintelligible characters, which is believed to have great power in curing cattle disease.

PALMANÉR TALUK.

PALMANÉR.

General description.

THE Palmanér taluk lies on the western side of the district, and is bounded on the west by Mysore; on the north by Punganúr; on the east by Chittoor and Gudiyáttam; and on the south-west by Salem. Its area is 439 square miles. It was formerly called the Kadapanattam taluk, the head-quarters being at the village of that name.

Hills.

The taluk is situated upon the Mysore plateau, the general level being nearly 2,500 feet above the sea, and some of the hills attaining to a height of nearly 3,000 feet. The chief of these are Pattikonda (2,908 feet), Bairapallikonda and Dévarakonda.

CHAP. XIX. PALMANÉR.

Rivers.

The principal river is the Koundinianadi, which entering the taluk from Punganúr, flows through the gháts into Gudiyáttam after receiving the surplus of the Dandapalli tank, fed by a Mysore river, and the waters of several other streams. It is generally known as the Gudiyáttam river, as the town of that name stands on its banks. The Goddár or Ambúr river also rises in the west of Palmanér, and discharges down the gorges in the neighbourhood of the Náyakkanéri pass.

Forests.

Palmanér has a great extent of jungle land, but large trees are mostly confined to the eastern portions, where the plateau descends to the plains. Elsewhere large numbers of tamarinds are found, and their produce is one of the principal articles of trade. The commonest tree is the kánaga (*Pongamia glabra*), which grows luxuriantly, and affords not only oil from its seeds, but excellent manure from its loppings and faded flowers. Forest products are abundant and wild beasts fairly numerous. The area of the Government forests is about 100 square miles.

Soil.

The soil of Palmanér is apparently more fertile than that of the two zemindáris which lie above the gháts, and being heavily manured, produces splendid crops. The soil of the taluk belongs entirely to the red series, about four-fifths of it being red sand and one-fifth red loam.

Fauna.

Panthers are fairly common and both tigers and bears are occasionally seen. On the slopes, hares, pea-fowl, jungle-fowl and pigeon are plentiful, and excellent duck and teal shooting is to be had on the tanks in the cold weather.

Climate.

Owing to its elevation the taluk is not a hot one, and, in December and January, the nights are quite cold and sharp. The normal rainfall is about 36 inches a year. The climate is cool and pleasant to Europeans, but in the neighbourhood of Venkatagirikóta natives, especially visitors from the plains, suffer much from fever.

Communications.

No railway runs through the taluk, but it has some excellent roads, the total mileage being 128. The principal roads are those from Palmanér to Chittoor 26 miles, from Palmanér to Gudiyáttam 28 miles, Palmanér to Venkatagirikóta 26 miles, and Palmanér to Punganúr 18 miles. The road to Venkatagirikóta goes on to Bangalore, and this was once a regular route between Madras and that station. Another route was up the Náyakkanéri pass and then on to Venkatagirikóta, but the pass is somewhat difficult for wheeled traffic. There is an alternative route from Palmanér to Bangalore *viâ* Pattikonda; this runs through the Kólár gold fields.

Administration.

The taluk lies in the Collector's division. The chief local revenue officer is the tahsildar (salary Rs. 150), who is assisted

Administration.

by a deputy tahsildar stationed at Venkatagirikóta and a sheristadar at Palmanér. All these three officers are also magistrates. The taluk forms a single police division under an inspector, and is divided into four police station charges. In respect to civil actions it is situated within the jurisdiction of the district munsif of Chittoor, who holds his court periodically at Palmanér. The number of villages is 102, and all but nine are inhabited. Of the total number, 70 are Government villages, and the rest shrotriem or inám.

Population.

The population in 1891 was 48,135, of whom 24,273 were males and 23,862 females. The population of the Government villages is 46,010. Hindus number 44,737, Musalmans 3,302 and Christians 96. The population has increased by 15·11 per cent. since 1881, and there are now 110 persons to the square mile. The number of occupied houses is 10,356, and there are on an average 4·65 inmates to each house. Of the male population 88·87 per cent. are illiterate, 8·66 per cent. can read and write, and 2·47 per cent. are learning. Of the females 99·74 per cent. are illiterate. Telugu is the mother-tongue of 34,358 persons, Tamil that of 4,001, Canarese that of 5,989, and Hindustani 3,077. Classified by means of subsistence the population consists of 30,659 landholders and tenants, 1,296 agricultural labourers, 7,409 general labourers, 2,567 traders, 496 weavers, 1,781 other artisans and 3,927 'others.'

The land.

The area of *ryotwári* land in the taluk is 258,100 acres, that of minor ináms is 12,922, and that of *whole inám* villages 9,904 acres. There are no zemindáris. Of the ryotwári land about 78,100 acres are under forest and 126,300 acres are not available for cultivation. Of the remainder, 35,000 acres are in occupation and the area available for extension of cultivation is thus 18,700 acres. The area cropped in 1892–93 was 32,300 acres of ryotwári land and 9,200 acres of minor inám, or about 0·90 of an acre per head of the population of Government villages. Including the area cropped more than once the extent was 47,100 acres. Ragi is the principal crop, and is grown on 18,000 acres in Government villages. The extent under rice is a little over 13,000 acres. There are nearly 1,500 acres under oil-seeds, about 900 acres under sugarcane and 800 acres under condiments and spices. Ragi, cumbu and horse-gram are the principal dry crops. Of the total area of ryotwári holdings in fasli 1302, the dry lands comprised 24,400 acres and the wet or irrigated lands 8,800 acres. The average assessment was As. 14–1 for dry and Rs. 4–1–2 for wet, or Rs. 1–11–8 for all lands taken together. There were in that year 6,514 single and 3,609 joint pattás, and 5,528 of the former and 2,915 of the latter were for sums below Rs. 10. The normal land revenue of the taluk is Rs. 66,000, and the cesses charged on land revenue amount to Rs. 11,000.

CHAP. XIX. PALMANÉR.

The land.

The principal irrigation is from tanks and spring channels. Several of the tanks are large and excellently built. The chief are those of Kízhéri, Kadapanattam, Kallupalli, Dandapalli, Baireddipalli, Jídimákulapalli and Mámadugu agraháram. The tanks depend upon local rain for their supply, and, unless they are filled seasonably, paddy cultivation cannot be undertaken. There are altogether 589 tanks and 37 spring channels, besides 11 private tanks and 1 private spring channel. There are also 2,611 wells, of which 1,977 are used to supplement other sources of irrigation. The total area irrigated in 1892–93 was 12,000 acres, but, if the area cropped more than once be included again for each crop, the area irrigated was about 18,000 acres.

The agricultural stock in the Government villages is shown in the marginal table. Interpreting ploughing cattle to mean bulls, bullocks and male buffaloes, there is one pair to every 6·31 acres in occupation, the district average being one pair to 5·45 acres; there are 47 cows and cow buffaloes to every 100 inhabitants against a district average of 19; and there are 98 sheep and goats to each hundred acres in occupation, the average for the district as a whole being 83.

Bulls and bullocks	14,883
Cows	20,812
Male buffaloes	311
Cow buffaloes	983
Young stock	21,187
Sheep	11,731
Goats	35,394
Ploughs	6,638
Carts	1,909

Products.

The only mineral that is worked in the taluk is iron, which is principally found near the villages of Mudaramdoddi, Chintamákulapalli, Gónamákulapalli, and Nakkanapalli, where it is made into bill-hooks and agricultural instruments of good quality. The other industries are the weaving of coarse female cloths, woollen cumblies, and the preparation of sugar and sugarcandy. The cumblies are woven by the shepherd caste, called Kuruba or Kurumba, who tend flocks of excellent long-fleeced sheep.

Palmanér or *Pallamanéri:* This is the chief town in the taluk, situated at its north-eastern extremity, and not far from the summit of the Mogili pass. Population 5,040, of whom 4,038 are Hindus, 907 Musalmans and 95 Christians. Post and telegraph office; travellers' bungalow; three chatrams; hospital; police station; registration office; head-quarters of tahsildar and inspector of police. District Munsif of Chittoor holds his court here periodically. Palmanér has always been a favourite residence of North Arcot Collectors, the altitude, 2,247 feet above the sea, giving it a pleasantly cool climate. When travelling to the Nilgiris was less easy than it now is, the town was not infrequently visited by residents of Madras during the hot season, and several excellent

bungalows are still standing. The place is, however, somewhat feverish in wet and cold weather. The etymology of the name Palmanér is not satisfactorily accounted for, but it has been suggested that it is from *Pallaman*, a Tamil proper name, and *éri*, tank. The fort, which was destroyed and levelled about thirty years ago, was constructed by one Savaram Venkatapati Naidu, a poligar whose family has long ago been lost sight of. The town, which has been greatly improved by successive Collectors, is clean and well built, the houses being of the flat terraced description. A busy trade is carried on in the bazaar in grain, jaggery, tamarind, cloths, and cumblies, all of which are also sold at the weekly fair. Owing to the cheapness of jaggery and the coolness of the temperature an arrack and rum distillery has for many years been established in the town. The American Mission and the Roman Catholics have both chapels and schools here.

The scenery in the immediate neighbourhood of Palmanér is rather tame, but in some of the gorges and valleys very pretty views may be obtained. A favourite excursion is to a lovely glen, called the Gangammachitsu (Gangamma's valley), where a small stream falls from a height of about 200 feet into a deep pool shut in on all sides but one by high precipitous cliffs of rock. The vegetation is luxuriant and the spot extremely picturesque. By the side of the Gudiyáttam road, and also at Kílpatla, 3 miles to the north of the town, are curiosities in the shape of enormous banyan trees covering ground upon which a large camp might be pitched. The ghát road to Gudiyáttam *viá* Sainigunta has some very charming bits of scenery, and is well worth traversing. At the top of it (Mórdána) there is a forest bungalow, built on the summit of a small eminence, from which an excellent view of the wooded hills is obtained. The prospect at sunrise or sunset and on a moonlight night is particularly pleasing.

The village goddess of Palmanér, as indeed of most villages in the Telugu part of the district, is Tirupati Gangamma and her annual festival is celebrated for fifteen days in April with considerable pomp and ceremony. The legend is that Gangamma was the daughter of a Bráhman and that she married a disciple of her father's. This young man was in reality a Pariah who passed himself off as a Bráhman. After his marriage a chance meeting with his mother nearly revealed everything, but he explained matters to her and persuaded her to give herself out to be a Bráhman widow. She did so and came to reside with her son and daughter-in-law, but one day she complained that some cakes of the latter's making tasted like roast buffalo-tongues. This revealed to Gangamma the true caste of her husband and she asked her father

CHAP. XIX. PALMANÉR. Places of interest.

'what should be done if a dog touches our pot and pollutes it.' Her father replied that the polluted pot must be burnt. She thereupon returned to her house and while her husband, children and mother-in-law were asleep inside, she set fire to it. She then prayed that she might be allowed to take the incarnation of Sakti and be worshipped by all mankind, that her husband might be born again as a male buffalo and be sacrificed before her eyes every year, with his fore-leg in his mouth and the navel and tongue on his head, and lastly that her children should be born as fowls, sheep and goats and also sacrificed before her at her festival. Having obtained a promise that her prayers should be granted, she threw herself into the flames and perished. A similar story is told of other village goddesses.

Venkatagirikóta: Population 683; head-quarters of deputy tahsildar; post office; police station; dispensary; travellers' bungalow and chatram. This town had formerly a far larger number of residents than at present, but for some years it was a hot-bed of fever. In 1863 the Collector reported that three-quarters of the houses in the town were in ruins, and the rest only inhabited because they were well built, and he recommended the removal of the magistrate's court to Mogarála, 3 miles distant. In 1865 a transfer was made to Krishnápuram, which proving equally unhealthy, the deputy tahsildar returned to his original station. About 1877 the site of the town was altogether moved to higher ground upon the west, and the health of the people has improved. The new town is well laid out and excellently drained, the work having been accomplished during the great famine as a means of affording employment to those seeking relief. The place is still, however, regarded as feverish and it is not at all popular with native officials.

The ruins of a fort of considerable size stand between the sites of the old and new town. It was built by one Venkatagiri Naidu, a poligar, who gave his name to the town. An ancestor of this man, named Nallappa Naidu, some four centuries ago settled at Vógu, 5 miles to the east, and built a fort, which he called Bairúvánidurgam after his deity Bairudéva. Shortly afterwards he moved about a mile nearer to Venkatagirikóta and built a new village, Bairapalli, and another fort. His descendant, as has been said, founded Venkatagirikóta, where the family ruled until they were dispossessed. When this event happened is not known.

The soil of the neighbourhood is rich, and upon it much sugarcane is cultivated. In a large tope close to the town an experiment was, some years ago, made in growing coffee. It succeeded at first, but the yield soon became very small, probably owing to

Places of interest.

excess of shade and neglect of pruning. A weekly fair is held here, to which cattle of a superior breed are brought for sale. Sugar, tamarind, and gram are the chief articles of export.

Baireddipalli: Population 1,256; post office, police station and chatram. This is a very flourishing village 12 miles to the south-west of Palmanér, and about 14 from Venkatagirikóta. It has a large tank, under which a considerable extent of land is irrigated, and carries on much trade in gram, tamarind, jaggery, sugar, and sugarcandy, the last mentioned being here manufactured in large quantities. Many of the inhabitants are Kómatis, who seem to be in very well-to-do circumstances, their houses being better built and more commodious than those seen elsewhere on the plateau. There is a most picturesque camping ground near the tank.

The original village, now called Digavaúr, was formerly called Pillári Gudipálu, which was built some three centuries ago by one Bai Reddi. This man had a son of the same name, who founded the present village, after finding two chests of treasure while he was ploughing. Bódi Kondamma Naidu, the poligar, hearing of the discovery, came down to seize the gold, but cobras immediately swarmed around it and kept him at bay. Bai Reddi, who was a mere boy, advanced to the chests, and the cobras made no attempt to touch him, which so impressed the poligar that he relinquished all claim to the treasure, and helped Bai Reddi to build the village and temple. He also gave him a necklace, which is still exhibited by a lineal descendant, the present monigar of the village, as a proof of the truth of the tradition. The temple is dedicated to one of the incarnations of Vishnu and the annual festival (in February) lasts five days.

Kadapanattam: Population 261. This village, which is about 2 miles to the south-east of Baireddipalli, was once the most considerable town and the head-quarters of the taluk, which was then called after it. It is now an ordinary cultivating village, having a very fine tank. One of the favourite routes to the plain country used to be through this place, which was consequently called the village of the threshold (kadapa). The actual entrance was at the Talapula ghát, a few miles to the east, across which a wall of defence was built with enormous gates (talapulu) in the middle. At Kadapanattam were two forts, one upon a hill and the other upon the plain, both of which were several times besieged by invaders of the Carnatic. Little now remains of them, but what there is goes to show that they could never have been of any strength.

Bápanattam, also called *Irulabanda Bápanattam*, is a small village about 4 miles east of Baireddipalli, well worth a visit

CHAP. XIX. PALMANÉR. Places of interest.

on account of its extraordinary collection of kistvaens, called by the natives the Pándava's temples (Pándava gudlu). They are found elsewhere in the district, chiefly in the Palmanér taluk, but are nowhere so numerous as near this village. A few of the kists were explored by Lieutenant-Colonel Bramfil, of the Trigonometrical Survey, who thus describes them:—

"The tombs here are of unusual interest, from the size, shape "and arrangement of the slabs of which they are composed, and "the rarity of their chief characteristic. The usual kistvaen, or "megalithic sepulchral cell, is enclosed by three rings of upright "stone slabs, each slab having its top rudely worked into a semi-"circular or rectangular shape, and set closely side by side alter-"nately, the round heads standing higher than their adjacent flat "heads by the amount of their semi-diameter, *i.e.*, the height of "the rounded portion, so as to form a parapeted wall of rounded "merlons and flat silled embrasures. These walls or parapets rise "in three consecutive tiers, on a slight mound, or cairn, a foot "or so above the general ground level. The outer circle or tier "consists of some twenty-four slabs, nearly 3 feet wide, half of "them being semi-circular above ground, and standing about 3 "feet high, the whole forming a ring fence, or enclosing wall, "about 30 feet in diameter. The second tier has sixteen slabs. "Eight of them round-headed, rising to a height of 5 or 6 feet "above the cairn, or mound, the whole forming an intermediate "ring wall, about 22 feet in diameter.

"The third or inner wall is composed of four prominent round-"topped slabs, 8 to 10 feet wide, and 10 or 12 feet high, above the "cairn and 4 or 5 feet higher than the other flat-headed slabs that "stand between them, and complete the inner wall, an octagon of "some 16 feet in diameter, or rather a square of 12 to 15 feet with "the corners cut off. The kistvaen or sepulchral chamber nearly "fills up the internal space, the capstone or covering slab of which "sometimes projects horizontally beyond the chamber below, so as "to fit closely to the four great round-headed slabs that enclose it, "the four flat-headed corner stones being only about the same "height as the capstone.

"The only entrance to the interior was apparently intended to "be by small holes broken in the two or three central slabs on the "east front, and nearly opposite to the similar hole in the eastern "wall slab of the kist. A kind of antechamber, or closed portico, "exists between the inner chamber and the next enclosing wall, "provided with a moveable shutter stone, or slab. The stone "slabs used throughout are comparatively very thin, being usually "about 3 inches thick, and even the great capstones seldom exceed

CHAP. XIX. PALMANÉR. Places of interest.

"6 inches. The whole forms an imposing structure, and recalls "the idea of a small citadel or fortification.

"There are many examples, perhaps a score or more, of this "pattern still standing, and about as many more of a very similar "kind, only without the round-headed projections, all the slabs in "each ring or tier being of the same height.

"Dividing the tombs into three classes according to size, and "counting the fallen and half buried as well as those standing "there are 170 of first, 210 of the second, and 200 of the third or "smallest sort, a simple kist, composed of slabs from 2 feet square "and upwards, more or less buried in the earth, and without any "enclosing wall or circle of stones remaining. The Nekropolis is "much ruined and overgrown by jungle, so that, I suppose, there "may well have been more than 600 tombs here within a space of "500 yards long and 300 yards wide. The interments have but a "shallow covering of soil, sometimes less than a foot. On excavat-"ing they were found to yield the usual sepulchral relics, except "that iron weapons were very scarce or entirely absent, while the "terracotta coffers were more abundant than in the similar tombs "of Mysore. In one a few ornamental beads, similar to some taken "out of the Coorg tombs, were found lying near the remains of a "human skull. Some of the coffers and sepulchral troughs, or "trays, were ornamented with a chain ornament in festoons, and "furnished with projecting rings, or loops, and prominent hooks, "as if to hang garlands upon. Some were mere small flat troughs, "whilst others ranged up to 4 feet long, 2 feet wide and high, and "furnished with four or five pairs of legs.

"Perhaps, however, I need only further mention the sole "novelty that struck me, and this may be no novelty to others. "Two or three Tamil letters were found scratched on the fragments "of a little bowl. They seem to spell the word satham or chatham, "but the final *m* is very doubtful, and may be intended for a "terminal *d* if that were admissible.

"A careful collection and close scrutiny of every fragment of "the pottery (which is abundant and of the rude but antique and "polished kind) would probably yield some valuable and curious "information as to the habits, &c., of the tomb builders.

"I know of but three or four other places where these peculiar "rounded slabs are to be seen, but they will probably be found to "be more common when looked for."

It has been suggested that these kistvaens are tombs of Kurumbas, who are still very numerous in this neighbourhood. They are sometimes called *Kurumbar kudi*, 'Kurumba's house,' in

CHAP. XIX. PALMANÉR.

Tamil, and, according to tradition, the Kurumbas were the allies of the Pándava brothers.[6]

Places of interest.

Nellipatla: Population 807. This is close to Bápanattam. Towards the north of the village, on the Dévarakonda hill, is a very old ruined temple, outside which is a rock inscription in characters believed to be Telugu, but unintelligible.

Náyakkanéri is situated at the summit of the pass of the same name, and is now almost a deserted village. The old trunk road to Bangalore used to pass up this ghát and on to Venkatagirikóta, about 10 miles to the west. The road is in fair order, but it is in parts very steep and is but little used by wheeled traffic. The village has a large choultry used by merchants transporting goods on pack bullocks to and from the plains, and there is also a forest bungalow and a police station. Upon the northern hill stands an old fort, called the Peddanaididurgam, which was the stronghold of the poligar of Cháragal, a village a few miles to the south. From the fact of his holding the key of this important pass into Mysore he became inflated with an idea of his great importance and rebelled, but was taken prisoner at the close of the last century, and his drúg was dismantled. He escaped from prison, and joining the Chittoor poligars in their rebellion, was seized and hanged. A good deal of the fortification on the hill remains, and proves it to have been a place of some strength.

Upon an opposite hill to the south is another collection of kistvaens, very many of which have been broken to pieces and the stones used in building the choultry. There are a few examples of the round-topped stones characteristic of the Bápanattam nekropolis, but the remains are not so numerous as at that place.

Dandapalli: Population 1,176; is a village 4 miles west-north-west of Palmanér. It contains an old ruined temple, said to have been built by a Chóla. There are five copper-plate *sásanams* in the possession of the village monigar.

---

[6] In vol. xiv. of the *Madras Journal of Literature and Science* will be found translations of a number of documents relating to these tombs, which, in one form or another, are found in many parts of South India. Reference should also be made to Colonel Branfil's article in vol. x. of the *Indian Antiquary*.

PÓLÚR TALUK.

CHAP. XIX. PÓLÚR.

General description.

The taluk of Pólúr is situated in the south of the district. On the north and north-west it borders on the Vellore taluk; its eastern side borders on the Arni Jágír and a portion of Wandiwash; its southern on the Tiruvannámalai taluk of South Arcot; and its western on the South Arcot district. It is somewhat triangular in shape; the length of each of its sides is about 35 miles, and its superficial area 562 square miles.

Hills.

The taluk is essentially a mountainous one, a large part of it being occupied by the Javádis, while there are also isolated hills near Pólúr itself and in the neighbourhood of Chetpat (Séttuppattu) on the Wandiwash border. The average elevation of the Javádis above sea-level is about 2,800 feet; the Carnaticghur rises to a height of 3,124 feet, and there are peaks in South Arcot and Salem of a greater height than this. A large block of these hills was transferred from Salem to North Arcot in 1885. The Javádis are inhabited by a people who are generally called Malayális, but they style themselves Vellálans. An account of them will be found in the first volume.

Rivers.

The principal river is the Cheyár, also called the Bahudánadi or hand-giving river. It was originally called the Skandanadi very many years ago, because Skanda-swámi, or Subramaniam, when fighting against Tárakásuran, ordered his peacock to peck at a mountain, from whence the present river flowed and refreshed his army. After a time two brothers, Vasuda and Sumati (some say they were rishis, and that their names were Swarúpánanda and Nityánanda), lived upon opposite sides of the river, and were both so deeply engaged in meditation that they only opened their eyes to eat what fruits they found handy once in twelve years. Upon one of these rare occasions the brother who lived on the southern side found the country desolated with famine, and therefore crossing the river, he plucked a fruit within his brother's domain without his knowledge. This amounted to theft, for which the offender would be punished in his future life if not chastised in the present. Application was therefore made by both brothers to the ruler of the country, who awarded as a punishment the loss of a hand. The other brother advised the mutilated man to worship at Pólúr and Padavéd, and after that to bathe in the Skandanadi. The remedy proved efficacious, the hand was restored, and the river became the Bahudánadi, which in Telugu appears in the form of Cheyár. The affluents of this river are the Kamandalanadi, or Padavéd river, the Murukandanadi, the

CHAP. XIX. PÓLÚR.

Bhímanadi, and the Manjalár, all having their rise in the Javádi hills.

Soil.

The soils are black and red clays mixed with sand or gravel, but the red soils greatly predominate. In the vicinity of the hills, where the ground is more fertile, a rich loam is found and the red loams, which form the greater part of the taluk, are also of good quality. In point of soil in fact Pólúr occupies a favourable position and excellent crops are obtained.

Forests.

The Pólúr taluk contains between 160,000 and 170,000 acres, or over 200 square miles, of Government forests, and nearly the whole of this large extent is on the Javádis. The largest forest is that of Vírappanúr, which is 100 square miles in extent. These forests have great potential value and even now give a considerable yield of timber, bamboos, myrobalans, gums, lac, wax, honey, wild saffron, Indian hemp, country sarsaparilla, &c.

Fauna.

This taluk has a greater variety of *ferae naturae* than any other in the district. The elephant was met with on the Javádis up to comparatively recent times, but there are none there now. Bison, however, are found in parts of the hills, and cheetahs, bears, hyænas, sambar, deer and wild pig are common, while tigers are occasionally seen.

Climate.

The climate of the plains is healthy, but on the Javádis fever of a very malignant type prevails. The hillmen themselves do not seem to suffer much from it, but it is so dreaded by people from the plains that it is with the greatest difficulty that they can be persuaded to go into the hills, and the administration suffers accordingly. The mean annual rainfall at Pólúr is about 39 inches, but it is probably greater than this on the hills. Each of the two monsoons gives about the same quantity.

Communications.

The Villupuram-Guntakal railway runs through the taluk from south to north, having stations at Pólúr and Kalambúr. The taluk is badly off for roads, the total length being only 47 miles. The principal highway is the road from Vellore through Kannamangalam and Pólúr to Tiruvannámalai. Another road of some importance is that connecting Pólúr with Chetpat and Wandiwash. There is great need of more roads in the northern and north-western parts of the taluk.

Administration.

The taluk lies in the Deputy Collector's division. The chief local revenue officer is the tahsildar (salary Rs. 150). He is also a magistrate, but the bulk of the magisterial work is performed by the stationary sub-magistrate at Pólúr. The taluk forms part of the Arni police division and the inspector's head-quarters are at that place. It is divided into five police-station charges. In respect to civil actions it is situated within the jurisdiction of the

district munsif of Arni. The number of villages, including the town of Pólúr, is 269, and all but six are inhabited. Of the total number, 268 are Government villages and one is shrotriem or inám. Administration.

Population. The population in 1891 was 139,709, of whom 69,380 were males and 70,329 females. The population of the Government villages is 139,558. Hindus number 130,279, Musalmans 3,815, Christians 4,739 and Jains 846. The population has increased by 23·36 per cent. since 1881 and there are now 249 persons to the square mile. The number of occupied houses is 18,116 and there are on an average 7·71 inmates to each house. Of the male population 87·07 per cent. are illiterate, 10·11 per cent. can read and write and 2·82 per cent. are learning. Of the females 99·65 per cent. are illiterate. Tamil is the mother-tongue of 118,599 persons, Telugu that of 16,305 and Hindustani that of 3,345. Classified by means of subsistence the population consists of 89,269 land-holders and tenants, 17,443 agricultural labourers, 6,400 general labourers, 7,897 traders, 3,170 weavers, 5,568 other artisans and 9,962 'others.'

The land. The area of *ryotwári* land in the taluk is 374,000 acres, that of *minor ináms* is 7,426 and that of *whole inám* villages 179 acres. There are no zemindáris. Of the ryotwári land about 169,200 acres are under forest and 30,800 acres are not available for cultivation. Of the remainder, 94,900 acres are in occupation and the area available for extension of cultivation is thus 79,100 acres, but nearly 10,100 acres of this are said to be unfit for tillage. The area cropped in 1892–93 was 90,600 acres of ryotwári land and 5,600 acres of minor inám, or about 0·69 of an acre per head of the population of Government villages. Including the area cropped more than once the extent was 117,700 acres. Rice is the principal crop and is grown on nearly 38,300 acres. There are 13,000 acres under oil-seeds, 500 acres under orchard and garden produce and about 250 acres under indigo. Ragi, cumbu and horse-gram are the principal dry crops. Of the total area of ryotwári holdings in fasli 1302 the dry lands comprised 68,500 acres and the wet or irrigated lands 27,500 acres. The average assessment was Rs. 1–2–3 for dry and Rs. 4–11–7 for wet, or Rs. 2–2-8 for all lands taken together. There were in that year 14,630 single and 8,410 joint pattás and 10,922 of the former and 5,699 of the latter were for sums below Rs. 10. The normal land revenue of the taluk is Rs. 2,34,000 and the cesses charged on land revenue amount to Rs. 33,000.

The principal irrigation is from tanks. The chief of the tanks are those of Aliyábád and Pólúr, the former believed to have been

CHAP. XIX. PÓLÚR. The land.

built by one of the Chóla rájás. Another large tank is that of Pólúr which irrigates an extent of more than 1,000 acres. There are altogether 275 tanks, 19 river channels, 8 spring channels, 2 anicuts and 5 madugus, besides 1 private tank. There are also 11,212 wells, of which 5,096 are used to supplement other sources of irrigation. The total area irrigated in 1892–93 was 31,000 acres, but if the area cropped more than once be included again for each crop the area irrigated was about 52,600 acres.

The agricultural stock in the Government villages is shown in the marginal table. Interpreting ploughing cattle to mean bulls, bullocks and male buffaloes, there is one pair to every 5·62 acres in occupation, the district average being one pair to 5·45 acres; there are 23 cows and cow-buffaloes to every 100 inhabitants against a district average of 19; and there are 83 sheep and goats to each hundred acres in occupation, the average for the district as a whole being 83.

Bulls and bullocks	31,397
Cows	25,195
Male buffaloes	5,000
Cow buffaloes	6,478
Young stock	23,790
Sheep	54,148
Goats	30,637
Ploughs	18,865
Carts	1,731

Products.

The ordinary minerals of the district are found in Pólúr, and besides these, magnetic iron ore occurs in small nodules near Pottarai, 5 miles from the kasba town. At Kándapáliam, 14 miles from Pólúr, a few garnets are found in a piece of ground measuring 3 acres, but they are of little value, having evidently been subjected to great heat, which has caused many flaws.

The manufactures are only two, weaving and shoe-making. There are many weavers in the taluk, their chief centres being the villages of Manasárábád and Mámpattu, where a rather superior sort of cloth is turned out and exported mostly to Bangalore. Coarse cloths are made at Aliyábád or Kalambúr, Singaravádi, Palankóvil and Mahádévamangalam. Cumblies are wôven at Áttuvámbádi and Kárappattu, the latter village producing the finer kind. Shoe-making is in the hands of the Labbais of Chetpat, who annually manufacture many thousands of shoes which are sold all over this district as well as South Arcot. This industry is, however, declining.

Pólúr: Population 8,631, of whom 6,721 are Hindus, 1,721 Musalmans and 189 Christians. Agriculture supports 4,356 of the inhabitants, trade 1,420, general labour 837 and weaving 255. The town is the head-quarters of the tahsildar, sub-magistrate and sub-registrar. It has a police station, post office, railway station (with telegraph office), dispensary, travellers' bungalow

Places of interest.

and chatram. The height of the railway station above sea-level is 544·29 feet. The etymology of the name is said to be *Póli*, a proper name, and *úru*, a village.

Pólúr is situated about 2 miles from the Cheyár, on its northern bank, and east of some hills called the Sampatgiri and Vassúr hills. Between these is built the bund of the Pólúr tank, which receives the waters of the Manjalár. The Sampatgiri is topped by a holy temple, and there is another shrine in the town. The town is poorly built, with narrow and ill-arranged streets. The road to Tiruvannámalai passes through its main bazaar, in which there is a lively trade in grain. A small ruined fort, without any history, stands near the town, but beyond this it is without any features of interest.

Chetpat or *Séttuppattu:* Population 2,321; police station; post office; chatram. Situated in the extreme south-east corner of the taluk, at the junction of the Wandiwash-Pólúr and Arni-Gingee roads. Formerly the head-quarters of a taluk of the same name which belonged to South Arcot. The town is now chiefly celebrated for its manufacture of native shoes already referred to, though it was formerly a Muhammadan military station of no small importance. The fort is now in ruins. The old Siva temple has some Tamil inscriptions. A large weekly fair is held here, attended by many villagers from this and the Wandiwash taluks. Chetpat has a very pretty camping ground.

Padavéd: This desolated city is one of the most interesting in the district. Though it now contains only 654 inhabitants, tradition says that it was the capital of a dynasty, which many hundreds or thousands of years ago held sway in this part of the country. This no doubt refers to the Kurumbas. The town was 16 miles in circumference, and full of temples, choultries, and fine private residences. The extent of the city may be judged by the fact that the present villages of Santavásal, where the fair or santa was held, and Pushpagiri, the site of the flower market, are 4 miles apart. The city is believed to have been entombed by a shower of dust and stones, which overwhelmed the whole of its magnificent buildings. Jungle has overgrown the whole area of the original city. There are two extensive but ruined forts upon the plain, built doubtless by the Kurumbas, and another upon a peak of the Javádi hills which overlooks the city.

There are two principal temples in Padavéd, one dedicated to a goddess called Rénukámbál and the other to Rámaswámi. The offerings at the latter were formerly paid to Government, the annual revenue being about Rs. 300. Rénukámbál's shrine is the more celebrated, and is visited by large crowds on Fridays

CHAP. XIX. PÓLÚR. Places of interest.

in the month of Ádi. The tradition regarding her and the city of Padavéd is as follows.

The goddess was the daughter of a king, named Raivata Rájá. Having obtained permission from her father to marry, she started with an army in search of a suitable husband. While she was in camp to the north of Padavéd hills, a voice from the skies announced that Jamadagni rishi, who resided in the forest by the river, was the man for her, and she accordingly marched onwards to find him, accompanied by her army and her attendant maid-servant Chámandi, who was skilled in magic. The rishi resented the goddess' intrusion, and conjured up magical armies, which Chámandi burned up by the fiery flames of her eye until Jamadagni quenched the flames by pouring forth the contents of his inexhaustible pot called Kamandalam. This formed the Padavéd or Kamandala river. For a long time a fierce battle continued, in which numbers were slain, and hence the town is called Padai (an army) vettu (to slay).[7] At last Chámandi was seized and bound with a garland of flowers upon the banks of the river, where her temple, that of Chámandéswari, now stands.

It now occurred to Rénukámbál that she had come not to quarrel but to get married, and she therefore called off her army, and began to play most melodiously upon her tom-tom. The surprised rishi came forward to see who the skilful performer might be, and she, observing the success of her manœuvre, coyly retreated into the forest, where he followed and married her. This happened in the month of Ádi, and on the Fridays of that month therefore the chief feasts take place.

After a time a son, Parasuráman, was born to the couple, who proved himself a most extraordinary child. Rénukámbál was a model wife, and as her mind was always filled with chaste thoughts she was able daily to carry water from the 'Padmasarasu' pool in a vessel made of sand. But one day a gandharva flew across the sky as she was drawing water, and his beautiful form reflected in the pool excited her admiration. From that moment she was unable to form her vessel from sand, and her husband's attention being attracted to the circumstance, he became jealous and ordered Parasuráman to behead his mother. The obedient young man fulfilled the order, and the rishi, greatly pleased, promised to grant him any request he chose to make. He begged that his mother's corpse might be restored to life, and was given some sacred water to sprinkle over the severed head and trunk. In his agitation

---

[7] This derivation, however, is doubtful. A preferable one is from *padai*, an army, and *vídu*, a town, so that *Padaivídu* means a camp. The inscriptions show that *Padaivídu* was the original form of the name.—ED.

Parasuráman united his mother's head to the body of a Pariah woman who had opposed him when he attacked his mother, and whom he had killed. To make matters worse he joined the Pariah's head to his mother's body. Jamadagni after some thought announced that as the head was the most important part of the body, the woman first brought to life represented Rénukámbál. The other was named Máriamma, and ordered to attend Rénukámbál as a servant. She has a temple at Padavéd, where animal sacrifices are offered up, chiefly by Pariahs, who consider that she belongs to their caste.

After some years a king named Kártavíra Arjunan came to visit the rishi, and was entertained at a magnificent feast provided by the cow Kámadénu, which could produce anything in the world. The rájá asked for the animal and was refused, on which he in a rage cut off Jamadagni's head. Rénukámbál attempted to commit sati, but the dévatas extinguished the flames of the funeral pyre with showers of rain. She descended naked, and covered with blisters, but, making garlands of margosa leaves, clothed herself, and by a thought summoned her son to her presence. Parasuráman was greatly annoyed at what the dévatas had done, but they explained that they had acted merely to increase the goddess' consequence, for now she would be universally feared, as she would manifest herself in the shape of blisters which should break out upon the bodies of the people, and for which margosa leaves should be the only cure. Small-pox is therefore now supposed to prove that this goddess has taken possession of the sufferer, and margosa leaves are still the common remedy. The figure in the temple is buried up to the neck in the ground, since the body belongs to a Pariah, and is propitiated by offerings of rice, jaggery and ghee. The female devotees often appear before it clothed only in garlands of margosa leaves.

When these things happened there were no city or temples at Padavéd. These, the legend says, were built by one Víraswán, a member of the Solar line of kings of Ayódya. A rákshasa named Rishaparava caused this prince much annoyance and trouble, and he applied to the rishi Vasishta to be directed to a spot where he could live in peace. Vasishta narrated the sacred history of Padavéd, and advised Víraswán to establish himself there. He did so, and was succeeded by his son Harihara and his grandson Hémamáli, with their descendants, who reigned very gloriously.

The destruction of this great city was caused by the curse of Hanumán. When Ráma fought with Rávana the latter was protected by the goddess of Padavéd, to whom he had most devoutly prayed, and she therefore lodged his life in a lotus flower which grew upon the Padmasarasu. Hanumán tried to pluck

CHAP. XIX. PÓLÚR. Places of interest.

the flower, but was opposed by the dévi, who cursed him. He retaliated by prophesying that her mighty city should be destroyed. She appealed to Ráma, who, on condition that Rávanan should be given up, modified Hanumán's curse by saying that the ruin of Padavéd should not take place until after ten thousand years of the Kali yuga had passed, when one Nandan Rájá should be the reigning monarch, who would prove a most cruel and sinful king, for whose misdeeds the town would be overthrown in a rain of dust. Then Ráma settled by the side of the dévi, and his present temple was built. There is also a pool of water called the Ráma-tírtam after him.

Many stories are current regarding the wicked king Nandan, after whom the place is generally called Nandan Padavéd. He was the son of Uttunga Rájá, and is described as most overbearing and tyrannical. It is not unlikely that after the conquest of the Kurumbas he was placed in Padavéd as ruler of the neighbourhood. It has been suggested that this Uttunga Rájá is Kula-Uttunga Rájá, the great Chóla king whose illegitimate son, Ádondai, utterly defeated the Pallavas and extinguished their kingdom for ever. His date, however, was from 1064 to 1113 A.D., and Padavéd was in existence for some centuries later. We gather from inscriptions at Virinchipuram in the Vellore taluk, Vallam in the Wandiwash taluk, and at Padavéd itself, that in the fifteenth century of the Christian era, the kingdom (rájyam) of Padavéd belonged to the province of Tondaimandalam and that it included, among other places, Gudiyáttam on the west and Vallam on the east. One inscription at Padavéd is dated 1449 A.D., and the destruction (or abandonment) of the city must have, therefore, occurred some time after that. This inscription is interesting as affording the latest recorded date of Dévarájá II of Vijayanagar, and as containing one of the earliest mentions of the division of castes into the right and left hand factions.

Kadaládi: Population 3,103; police station. A large agricultural village, 12 miles south-west of Pólúr. In a tope near the road to Pólúr are some stone statues, on the top of a high rock is an old Siva temple, and a mile east of the village is another old temple.

Kárappattu: Population 3,652. The weaving of fine cumblies (blankets) is carried on here.

Aliyábád: Population 5,096. Travellers' bungalow (P.W.D.) close to Kalambúr railway station. Coarse cloths are woven here.

Nakshatrakóvil is situated near the village of Elattúr, and possesses a temple only second in importance to that of Padavéd. It is dedicated to Subramaniaswámi, who is supposed to have the

power of curing all kinds of sickness. Vows are therefore made to him, and penances performed, which usually consist in going round the hill several times. As at Tiruttani, many pilgrims visit the shrine on the Krittiga day of each month. There is a Public Works Department bungalow at Elattúr.

Mandakollattúr: Population 1,579; was once celebrated for its pandits, who were well versed in Sanskrit and the Védas. The village has still a very large Bráhman population.

Carnaticghur is a strong hill fort said to have been built by the Mahráttas. It is situated upon a spur of the Javádis, about 2,700 feet above the sea, which terminates in a huge dome-shaped rock, on which the citadel is built. This is 3,124 feet above sea-level and is separated from the rest of the fort by a narrow neck of rock 50 yards broad. The length of the main enclosure is nearly half a mile, and its breadth about a quarter of a mile. The ramparts are built of stone to a height of from 20 to 25 feet, surmounted by a stone parapet having embrasures and loop-holes for muskets: a banquette runs all round the walls. There are a few ruined buildings to be found here and there within the enclosure, but all is so overgrown with jungle as to be rapidly falling into complete ruin. The view from the highest point of the citadel over the hills on the one side and the plains upon the other is very charming.

Tirumalai: Population 633; is a small village about 7 miles north-east of Pólúr, and about 5 from Dévikápuram. It stands at the base of a precipitous hill of granite upon which are some relics of the Jain religion. Some Jain families still live in the village, and the temples on and below the hill belong to them. The most striking sculpture on the hill is a rude Jain figure, 16¼ feet high, found cut on the face of a cliff near the summit. It is not surrounded with the usual spiral branches or leaves. Upon its left is a long inscription, in archaic characters, the meaning of which has not been yet discovered. Other inscriptions occur elsewhere, and particularly near the temple at the foot of the hill, but many are greatly defaced. Some of them have been deciphered by Dr. Hultzsch, who has published an account of them in his *South Indian Inscriptions*, vol. i. The earliest is dated in the reign of Rájarájá, who ruled early in the tenth century.

There appears nothing remarkable about this lower temple, but close to it some rock chambers have been constructed in a natural cave formed in the face of the cliff. Many Jain figures once stood in these, but were more or less destroyed during the Hyder 'kalábana.' Upon the walls are numerous frescoes, on the whole very well executed. The most interesting, and perhaps the best painted,

CHAP. XIX. PÓLÚR. Places of interest.

is a circular one having a Jain figure seated in the centre, and the partitions around being filled with Nágas, monks, white-hooded nuns and others. Close to the village are two very large stone circles.

PUNGANÚR ZEMINDÁRI.

PUNGANÚR. General description.

THIS estate is 648 square miles in extent, and is situated above the gháts in the north-west corner of the district. It is bounded on the west by Mysore; on the north by Cuddapah; on the east by the Chendragiri and Chittoor taluks; and on the south by the Palmanér taluk.

Hills.

The natural features of Punganúr are those of the rest of the Mysore plateau. The hills in the centre and east are higher and bolder than those in the west, and are covered with a larger and denser growth of jungles.

Rivers.

The south-eastern portion is drained by the Koundinianadi, which passes through Palmanér into Gudiyáttam, and the waters of the north-west flow northwards, uniting eventually with the Bahuda river of Cuddapah.

Forests.

The finest jungle occurs in the east, extending a distance of 2 miles between Ávulapalli and Chaidambailu, and passing for some distance down the Ávulapalli gorge towards the Chittoor taluk. The Parikidóna jungles on the west and the Basavápuram jungles on the south deserve notice, not so much for their forest wealth as for their affording extensive pasture grounds, which are rented out as such by the zemindar. A very excellent breed of cows is raised here. In the hilly and wooded portions of the estate large game is pretty plentiful, and until thirty or forty years ago some elephants were found.

Climate.

The climate, like that of the plateau generally, is pleasant, the temperature seldom being high, while in the cold weather the air is keen and invigorating. The zemindári appears to be less feverish than the adjoining taluk of Palmanér and is dry and healthy. The average annual rainfall is only 28·80 inches and not infrequently the amount received is considerably less than this. Each monsoon gives about the same quantity.

Communications.

There are no railways in the zemindári, the nearest being the Villupuram-Guntakal line just over the Cuddapah border. The principal road is the Bombay trunk road which runs from Palmanér through Punganúr to Madanapalle. Another road runs from Punganúr, through Saddam, to Kallúr, and a third road goes

from Punganúr to Bangalore. More roads are needed to connect the zemindári with the railway, and to open up the eastern portion in the direction of Ávulapalli.

History.

The family of the present zemindar is said to have settled in the country as early as the thirteenth century, and to have been in possession of considerable territory which is not now included in the estate. One Sítappa Gouniváru, leaving his own village of Mudwarapúr, the position of which seems unknown, came with his near relatives, composing seven families, by way of Conjeeveram and settled at Varigapalli in the Chittoor taluk. After residing there for a short time the immigrants in S.S. 1172 (A.D. 1250) moved to Sungatúr, founded a city, built a fort, and constructed a pagoda which they dedicated to Chennakéswara Swámi. At the close of the fifteenth century the head of the family, Timmayya Gouniváru, found some hidden treasure, which, in 1479, he expended in clearing the country round the present town of Kólár in Mysore. He founded that place and built its fort. He was succeeded by his son Immidi Timmayya Gouniváru, who is said to have driven away Adil Sháh when he attacked Penukonda in the time of Krishnadéva Ráyalu, for which act the latter gave him the title of *Ráyalu* and the district of Anikal, near Úsúr, without obligation of tribute. In 1510 he built Úskóta and Jangamkóta towns about 10 miles apart, and 20 or 30 miles west of Kólár, and seven years later he fortified Anikal. His sway at this time extended over Kólár, Sungatúr, Anikal, Úskóta, and Jangamkóta, but at his death his two sons divided these territories, the elder Chikkaráya Timmayya, from whom the present zemindar is descended, taking Kólár and Sungatúr. About this time Vellore was seized by the Vijayanagar Rájá, whose family while travelling was attacked by a freebooter named Vírappa Naidu, who was carrying off the women and treasure when the poligar intercepted him, and restored the prisoners and property to the rájá. In return he received various presents and titles, as well as the distinction of the *nowbut*, for the maintenance of which Pílér and Gútikal were given in jágír, with the admonition to destroy the Bóyas, or petty poligars, and assume their possessions without obligation of peshkash or nuzzer. The poligar accordingly fortified Gútikal, seized Saddam and Kandúr, and going to Ávulapalli, conquered the Bóyas and settled that district. He then built the fort of Punganúr, but continued to reside at Kólár. As his son Chikkaráya Basava Gouniváru was only six years old at the time of his father's death, an aunt named Hulsammál became regent. During her regency Tenésha Pádsháh, of Bíjapur, sent Ranadhullá Khán into the country, who invested Kólár and Úskóta. Hulsammál retreated with her nephew to Ávulapalli (A.D. 1639),

CHAP. XIX. PUNGANÚR. History.

leaving a garrison at Kólár, which surrendered, and Úskóta, Jangamkóta, and Sungatúr were seized. The sultan confirmed the young poligar in possession of Punganúr, Saddam, Kandúr, Pílér, Gútikal, and Anikal, and issued a sanad. Vírachikkaráya, son of Chikkaráya Basava Gouniváru, about this time visited Hyderabad, and was well received, obtaining presents and the title of Báhádur, and being ordered to pay tribute to the Cuddapah Nabob. This arrangement continued for some time, but the peshkash fell into arrears and the next poligar, Immidi Chikkaráyalu, was deprived of the Pílér and Gútikal divisions. His son Mummidi Chikkaráyalu fell fighting against the Mahráttas on the side of Abdul Mahsim Khán, Nabob of Cuddapah, in 1757. The nabob was himself slain, and half his soubah, including Punganúr, was taken by the Mahráttas. From them it passed to Hyder, after twenty years of contest between the nabob, the Mahráttas and Mysore, during which time Punganúr paid tribute sometimes to one and sometimes to another. In 1775 Hyder's brother-in-law, Mír Sahib, resumed Saddam and Kandúr, but by Hyder's order they were for a time restored and then resumed again. In 1780 Pedda Chikkaráyalu followed the Mysore army into the Carnatic, and died before Wandiwash. His son succeeded, but as he did not pay his tribute he was, in 1785, obliged to fly to Ávulapalli from Tippoo's anger. During the Mysore war he materially assisted Lord Cornwallis by supplying transit and provision, and at the conclusion of peace was confirmed by Tippoo, but shortly after forced to seek safety in the Company's possessions. After the last Mysore war he once more returned to his estate, but he and his successors only managed it as tahsildars or lessees for many years.

In 1832 the poligar died without issue, and a dispute arose regarding the succession. He left two widows, each with an expectation of offspring. One bore a daughter, and the other miscarried, so the succession went to the brothers. Of these, the elder was alleged to have been adopted out of the family, but Government recognised him, considering the adoption not proved. In 1841 he died, leaving two sons, of whom the elder, the present zemindar, was only 11 years old. His uncle at once seized possession of the treasure, but died within a year while an inquiry into his misconduct was being made. The minor was installed in 1847, but did not obtain a permanent sanad until 1861. He was made a Companion of the Order of the Indian Empire in 1884. The zemindar belongs to the Siváchár or Lingáyat caste.

Administration.

The zemindári lies in the Collector's division, which is usually administered by the Assistant Collector or the head-quarter Deputy Collector. The chief local magisterial officer is the subordinate magistrate of Punganúr (salary Rs. 120), who is also

in charge of revenue administration, the chief business in this direction being the collection of the income tax. The zemindári forms a single police division under an inspector and is divided into six police-station charges. In respect to civil actions it is situated within the jurisdiction ot the district munsif of Chittoor. The number of villages is 1,082,[8] of which 843 are inhabited. Of the total number 4 are Government villages, 272 are inám and 806 are zemin. As in other parts of the plateau, each considerable village has its keep, and is also sometimes surrounded by a stone wall.

CHAP. XIX. PUNGANÚR. Administration.

The population in 1891 was 92,023, of whom 46,603 were males and 45,420 females. The population of the Government villages is 200. Hindus number 86,761, Musalmans 5,061 and Christians 196. The population has increased by 27·56 per cent. since 1881, and there are now 142 persons to the square mile. The number of occupied houses is 18,132, and there are on an average 5·08 inmates to each house. Of the male population 89·31 per cent. are illiterate, 8·40 per cent. can read and write and 2·29 per cent. are learning. Of the females 99·57 per cent. are illiterate. Telugu is the mother-tongue of 78,607 persons, Tamil that of 1,747, Canarese that of 6,149, and Hindustani that of 4,706. Classified by means of subsistence the population consists of 56,712 landholders and tenants, 6,440 agricultural labourers, 8,648 general labourers, 6,250 traders, 1,312 weavers, 3,157 other artisans and 9,504 'others.'

Population.

The extent of land under cultivation is about 105,000 acres, or about one-fourth of the area of the zemindári. There are twenty-four rates for wet lands varying from Rs. 17 to Rs. 11-10-0; and thirty-six for dry lands varying from Rs. 15-14-10 to As. 1-2 per acre. These rates were fixed in 1805, and have not since been modified. The average revenue for the six years ending with fasli 1286 is stated to have been only Rs. 94,000. The present normal revenue is about Rs. 2,75,000 and about Rs. 16,000 is received from other sources. The peshkash is Rs. 66,797, or with the cesses Rs. 77,239.

The land.

Tanks form the chief sources of irrigation. There are also a few wells and river channels. The chief tank is that of Sankaráyapéta, fed by the Koundinia river. It was built by the grandfather of the present zemindar, and has a high, broad bund, about a mile in length, under which 1,200 acres of land are irrigated. At Ráyalpéta and Yerikipenta are other large reservoirs, irrigating between 300 and 400 acres each.

[8] The large increase in the number of villages since 1881 is due to the fact that in that year the *mouza*, comprising several villages, was taken as the unit, while in the village statistics of 1891 each individual village is shown.

CHAP. XIX. PUNGANÚR. Products.

Any amount of excellent granite can be got all over the zemindári, and lime is plentifully found at Punganúr, Saddam, Palamanda, and to a less extent in many other places. Iron sand is collected in most of the hill streams, but chiefly near Ávulapalli, Kandúr and Chembakúr. It is very extensively worked, and the metal, which is much preferred to any that can be imported, is chiefly sold in the Soudapalli fair. It costs more than foreign iron, and is converted into ploughshares and heavy bill-hooks of a pattern peculiar to this part of the district. The workmanship is good, but the tempering might be better.

The extent of sugarcane cultivation is comparatively large, and considerable quantities of jaggery are manufactured and exported from the division. Besides agriculture, the other industries are the weaving of coarse cloths and still coarser cumblies, and the manufacture of iron implements already referred to. The cotton cloths are mostly produced by Pariahs, and the cumblies by Kurubas. There are also a few braziers, who are tolerably skilful. The exports are chiefly tamarinds, sugar, jaggery, gram, and a good deal of jungle produce in the shape of tanning barks. The imports are almost confined to salt and fine cloths.

Punganúr: Population 5,565; residence of the zemindar; head-quarters of the sub-magistrate and of the police inspector; union under District Boards' Act; police station; post and telegraph office; hospital; registration office; chatram (for Bráhmans). There is no travellers' bungalow, but the zemindar will usually provide accommodation either at his mahál or garden bungalow; the visitors' book, dating back to the beginning of the century, is worth an examination. Punganúr is the only considerable place in the zemindári. The name is derived from one Pungamma, who, with the assistance of a sister Takkamma, is believed to have built the large tank which irrigates the lands near the town. Who these sisters were is not now clear, but they are said to have lived before the present zemindar's family settled in the country, and to have been very poor. Soon after its construction the tank breached, and all efforts to fill the gap failed until Pungamma sprang into it, and ordered the people to throw earth around her. For thus sacrificing her life in order to benefit the people she was elevated to the position of a sakti, and a temple upon the bund was built, in which she is worshipped and where sacrifices are performed. For many years after her death Pungamma's spirit is said to have conversed with the people in the darkness of night, and to have lent jewels to them; but at last a mean advantage was taken of her amiable conduct, some jewels were not returned, and from that day she ceased to speak.

Places of interest.

The town is fairly built, the houses being mostly of the low terraced kind. A good deal of trade in the products of the zemindári is carried on, and once a year, in April, after the local festival in honour of Mánikyaráyaswámi, which attracts great crowds, a large fair is held, when several thousand cattle are exposed for sale. The Mysore bullock is the breed chiefly represented, and for a pair of these as much as Rs. 600 is said to have been paid. In the centre of the town is the zemindar's palace, a large and somewhat ancient building, in which accommodation for European travellers is set apart. In front is a spacious courtyard containing several dens in which wild beasts are confined, and a museum in which is a strange collection of curiosities, the most remarkable being life-size models representing various native castes in their usual state of dress or undress. The walls of the old fort encompass the palace and grounds. It is a rectangular structure, with occasional bastions and an encircling ditch, but the latter is almost filled up, and the walls have been partially dismantled.

In the town is a fine drinking-water tank, surrounded by beautiful stone steps, and having a mantapam in the centre. It was built about 150 years ago by a female ancestor of the zemindar, and is largely used. A mile and a half from the town are the ruins of a large Roman Catholic chapel bearing the date 1780, but only a very few Christians now remain in the neighbourhood. The zemindar has built a neat little school-house in the town, which was much wanted as education is very backward in this part of the district. He has also constructed, a mile east of the town, a small bungalow surrounded by a large garden tastefully laid out. The climate is admirably suited to the cultivation of roses and other flowering shrubs.

Rámasamudram is about 10 miles to the west of Punganúr and close to the Mysore frontier on the Bangalore road. Population 1,494; police station; post office. The village fort is said to have been constructed by the Reddis who built the Vellore fort. The temple to Janárdhanaswámi is a fine one.

Soudapalli or *Chavudapalli*.- Population 1,546. It lies about 10 miles north-east of Punganúr, and has a bazaar in which iron, steel, and cumblies are the principal articles of commerce. It is chiefly remarkable for a temple, which, for the plateau, is of superior workmanship and contains some fair carvings. In front is a fine monolith about 60 feet in height, of graceful proportions.

Kandúr is a fair-sized village in the north-east of the estate, with a population of 1,114. The old village wall has been almost obliterated, but the stones of the gateway remain in position. The old citadel is also in ruins; within it stands a small Hindu temple.

CHAP. XIX. PUNGANÚR.

Places of interest.

The village has the advantage of having two good-sized tanks, and the people are mostly engaged in agriculture.

Ávulapalli, or 'the village of cows': Population 295; is a very old village, and has been a large one, but it is now nearly deserted for Upparapalli, about a mile south of it. There are the remains of an old palace of the zemindars, with whom Ávulapalli was a favourite resort for sporting purposes. There is an ancient temple with carved pillars supporting a portico, but the roof of this has fallen in and adds to the deserted aspect of the place. On the opposite side of the river, at a distance of about a mile from the village, rises a high hill called the Ávulapalli drúg. On its summit is an extensive but ruined fortification of some antiquity, built by the poligars who ruled the country before the present family got possession. It is admirably situated to command the steep pass leading down through thick forest into the Chittoor taluk, but the climate is very feverish. To this retreat the zemindars were accustomed to betake themselves in times of trouble. The remains of a few buildings and a temple still exist upon the hill. The temple is regarded with considerable veneration, as the rishi Garkia, who gives his name to the neighbouring stream, is believed still to visit the place, and virtuous men hear the sound of bells and music at midnight as though he were worshipping there. Every Monday many people offer up prayers at the shrine.

Kilapatla is now a small village with a population of 739, but it was once noteworthy on account of the celebrated poligar of these parts, Bódikondamma Naidu, who lived here, and the temple built by Bramha rishi, which the people affirm was in the poligar's time esteemed to be as holy as Tirupati. Kondamma Naidu used personally to conduct a most gorgeous annual festival, and because he spent all his revenues on this instead of paying his peshkash, he got into trouble with the Rájá of Chendragiri, who seized him and put him in prison. When the festival approached he begged for one day's leave to conduct the ceremonies, which was denied, but on the feast day morning his cell was found empty, and when the rájá pursued him to Kílapatla he found him seated on an elephant and heading the procession. The swámi had, of course, miraculously released his devotee, and the rájá in consequence not only forgave but honoured him in many ways. Kondamma Naidu's name is talked of all over Punganúr and Palmanér, but his descendants now live in Kílapatla in poverty. The temple is in ruins and the festival, though continued, has lost all its importance. Near the village is a famous banyan tree covering a very large area.

Agastíswarakonda is only noteworthy as being a holy place. It is said that when Siva was performing a yágam in the

north, so many people flocked to the spot that the earth was about to be upset, when Siva sent Agastya hither to maintain the balance. He employed his leisure in building the temple on the hill, which is now in bad repair. An annual festival, Sivarátri, is here celebrated, and the place is, like Kálahasti, sometimes called the Southern Benares. Popular opinion asserts that the Swarnamukhi really rises in a deep pool in this hill. This was once proved by a man who dropped into it a lime and a rattan, and then, hurrying off to Kálahasti, recognised them as they floated down the river there! *Places of interest.*

VELLORE TALUK.

VELLORE.

General description. THE Vellore taluk is bounded on the west and north by Gudiyáttam, from which it is separated by the Pálár; on the east by Arcot; and on the south by the Arni jágír and Salem. Its length from east to west is about 35 miles, and its breadth about 12 miles, the superficial area being 455 square miles.

Hills. The northern portion of the taluk, which lies along the right bank of the Pálár, is flat and open, but most of the rest is covered with numerous hill ranges proceeding from the Javádis, which occupy the eastern and southern parts. The chief elevations on these hills are Kailásagiri, Periyamalai, Chakkilidurgam, and Úchikamalai, most of which are upwards of 2,500 feet above the level of the sea. The height of Kailásagiri is 2,743 feet. Many valleys occur between the hills, the most extensive being the Agaram valley.

Rivers. Besides the Pálár the only stream deserving of mention is the Agaram river, which rises in the Javádis and flows northwards to the Pálár, into which during the rains it discharges a very large quantity of water. No anicuts are built across any of the rivers, but the smaller streams feed several tanks, and have numerous spring channels scooped out of their beds. The Pálár is spanned close to Vellore by a fine bridge. It was partially destroyed by the floods of 1874, but was at once restored, the foundations being at the same time extended on one side to a sufficient distance to allow of a light bridge being raised upon them to carry a narrow-gauge line of rails, which it was proposed to lay down in order to bring Vellore town into direct communication with the station 4 miles distant. This light bridge was never built, but the desired railway connection has been effected by the Villupuram-Guntakal line, which crosses the river some distance above the road bridge.

Soils. The soils of the taluk are in the valleys rich loam and red and black clays mixed with sand and gravel. These are remarkably

CHAP. XIX. VELLORE.

fertile. In the level country the proportion of sand becomes greater and the fertility less, while in some parts a great deal of soda and salt occurs and makes the ground barren.

Forests.

The taluk contains over 100,000 acres of Government forests, the largest reserves being those of Ambúr and Arasampattu. The variety of timber trees is considerable, and some are very valuable, both as timber and as fuel, especially railway fuel.

Climate.

The climate of the hills and some of the valleys is feverish, but elsewhere the taluk is particularly healthy. The average annual rainfall is about 42 inches, the rainiest month being October.

Communications.

The south-west line of the Madras Railway enters the taluk near Mélpádi and proceeds thence through Ambúr and Vinnamangalam. The Villupuram-Guntakal line runs from Vellore, south to Kaniyambádi and north to Kátpádi junction.

The total length of roads in the taluk is 132 miles. The Madras-Calicut road runs right through from east to west, connecting Vellore, Pallikonda and Ambúr; another road runs south from Vellore through Kaniyambádi, to Arni; and a third goes from Vellore down the great Agaram valley to Tiruppattúr. In addition to these there are a number of minor branches and cross roads.

Administration.

The taluk lies in the Sub-Collector's division. The chief local revenue officer is the tahsildar (salary Rs. 175). The magisterial work of the taluk is performed by a sub-magistrate stationed at Vellore and another one stationed at Ambúr. The taluk forms a police division under an inspector and is divided into seven police station charges; the town of Vellore forms a separate division under another inspector. In respect to civil actions it is situated within the jurisdiction of the district munsif of Vellore. The number of villages, including the towns of Ambúr and Vellore, is 151, and all are inhabited. Of the total number, 149 are Government villages and 2 are shrotriem or inám.

Population.

The population in 1891 was 192,937, of whom 95,018 were males and 97,919 females. The population of the Government villages is 191,494. Hindus number 164,867, Musalmans 25,428, and Christians 2,416. The population has increased by 14·27 per cent. since 1881, and there are now 424 persons to the square mile. The number of occupied houses is 28,073, and there are on an average 6·87 inmates to each house. Of the male population 78·54 per cent. are illiterate, 16·66 per cent. can read and write and 4·80 per cent. are learning. Of the females 97·88 per cent. are illiterate. Tamil is the mother-tongue of 139,014 persons, Telugu that of 36,412 and Hindustani that of 14,293. Classified by means of subsistence the population consists of 80,691 landholders

and tenants, 28,490 agricultural labourers, 13,019 general labourers, 21,928 traders, 2,795 weavers, 13,643 other artisans and 32,371 'others.'

The land.

The area of *ryotwári* land in the taluk is 260,900 acres, that of *minor ináms* is 6,565 and that of *whole inám* villages 1,920 acres. There are no zemindáris. Of the ryotwári land about 83,600 acres are under forest and 81,000 acres are not available for cultivation. Of the remainder, 78,300 acres are in occupation, and the area available for extension of cultivation is thus 18,000 acres, but nearly 14,000 acres of this are said to be unfit for tillage. The area cropped in 1892–93 was 71,900 acres of ryotwári land and 5,800 acres of minor inám, or about 0·41 of an acre per head of the population of Government villages. Including the area cropped more than once the extent was 101,700 acres. Rice is the principal crop and is grown on nearly 30,000 acres in Government villages. There are nearly 7,500 acres under oil-seeds, 4,300 acres under orchard and garden produce, and over 800 acres under indigo. Ragi, cumbu and horse-gram are the principal dry crops. Of the total area of ryotwári holdings in fasli 1302, the dry lands comprised 59,200 acres and the wet or irrigated lands 17,000 acres. The average assessment was Rs. 1–8–3 for dry and Rs. 6–4–2 for wet, or Rs. 2–9–3 for all lands taken together. There were in that year 12,531 single and 6,715 joint pattás, and 8,947 of the former and 4,039 of the latter were for sums below Rs. 10. The normal land revenue of the taluk is Rs. 1,99,000, and the cesses charged on land revenue amount to Rs. 29,000.

There are no anicuts across any of the rivers, but the smaller streams feed several tanks, and have numerous spring channels scooped out of their beds. The principal tanks are those of Seduppéri, Seduválai and Torappádi. There are altogether 112 tanks, 85 river channels and 63 spring channels, besides 2 private tanks. There are also 13,707 wells, of which 4,123 are used to supplement other sources of irrigation. The total area irrigated in 1892–93 was 37,000 acres, but if the area cropped more than once be included again for each crop the area irrigated was about 61,000 acres.

The agricultural stock in the Government villages is shown in the marginal table. Interpreting ploughing cattle to mean bulls, bullocks and male buffaloes, there is one pair to every 4·35 acres in occupation, the district average being one pair to 5·45 acres; there are 14 cows and cow

Bulls and bullocks	35,576
Cows	18,834
Male buffaloes	3,419
Cow buffaloes	7,575
Young stock	27,053
Sheep	42,609
Goats	22,840
Ploughs	17,804
Carts	2,247

CHAP. XIX. VELLORE. Products.

buffaloes to every 100 inhabitants against a district average of 19, and there are 77 sheep and goats to each 100 acres in occupation, the average for the district as a whole being 83.

Besides iron, lime, and building stone, which are common saltpetre is found in some parts of Vellore, and was until a few years ago manufactured to some extent. Iron is only worked slightly in the villages of Pákkam and Pákkampáliem. The industries are cloth and kóré mat weaving, the making of brass vessels, and the manufacture of paper, indigo, and gunny. Common cloths are produced in very many places, but notably in Vellore, Ambúr, and Pallikonda. Reed (*kóré*) mats are made chiefly at Pallikonda and Agaramchéri by Labbais and Agamadis. The manufacture of brass utensils and plates is almost confined to Vellore, where several hundred Kammálas are employed in it. Paper was once largely produced, but the industry is gradually dying out. Gunny (sacking) is made in Pallikonda by Janappas, and indigo is produced in many places.

The trade of the taluk is very great, chiefly in grains and jaggery, and the larger proportion is confined to the kasba town, whence the produce is mostly exported to Madras and Beypore. In 1875 the exports from the Vellore (now Kátpádi) station to these two places alone were in rice 18,000 tons and in jaggery 3,000 tons. A good deal of forest produce is also exported, particularly bamboos, those cut in this taluk being celebrated. The Malayális who inhabit the Javádis gather much bark, lac, honey, and wax.

Vellore town has a population of 44,925, of whom 31,224 are Hindus, 12,220 Musalmans, 1,474 Christians, 3 Jains and 4 Brahmos. Of the total 10,000 are traders, nearly 6,000 are artisans, 6,000 are agriculturists, 4,700 are general labourers and the remaining 18,000 are distributed over a large number of other occupations. The town is a municipality under the District Municipalities Act, and has an annual income of about Rs. 54,000. It is the head-quarters of the sub-collector, district medical officer, district forest officer, chaplain, executive engineer, local fund engineer and assistant engineer, assistant superintendent of police, district munsif, tahsildar, sub-magistrate, police inspector and sub-registrar. It has a post and telegraph office, a hospital, police station and a large langarkhána or poor-house. There is no travellers' bungalow. It now possesses a railway station (height above sea-level, 700 79 feet) within its limits instead of 4 miles away across the river as formerly. It is a cantonment, but there are now no troops quartered there, though a station staff officer is still maintained, chiefly to superintend payments to families of sepoys serving elsewhere. Between 1881 and 1891 the population of the town increased by 9·69 per cent.

CHAP. XIX. VELLORE.

Places of interest.

Vellore is the largest town in the district and is the centre of an enormous trade in grain, while almost every thing else can be purchased in its bazaars. It is often called by the natives Ráya-vélúr, to distinguish it from Ellore, in the Gódávari district, which is known as Uppuvélúr. The original settlement was Vélappádi, now a suburb, which derived its name from the circumstances of its being situated in the midst of a forest of véla or babool trees. Vellore similarly signifies the village of babool trees, and the prefix Ráya was added in consequence of its becoming a stronghold of the rájás of Vijayanagar.

The town, which includes ten small villages, stands about a mile to the south of the Pálár river. On its east rises a short range of bare hills, some 500 feet above the level of the plain and running from south-east to the north-west. At their north-west extremity is the cantonment, with the native town or pettah between it and the base of the hills. Further south are the houses of the European residents, arranged on either side of the trunk road to Arni, which runs through the town. Most of the houses in the pettah are tiled, well built, and neatly whitewashed. The streets are generally broad, clean, and regular, with stone or masonry drains upon either side of the more considerable ones. The town is pleasantly situated, with hills upon all sides, and has many topes of graft mangoes, oranges, vines, cocoanuts, and other fruit trees within it and on its outskirts. The cultivation of sweet-scented flowers is one of the industries of the place, and many bales of these are daily sent by rail to Madras.

The chief object of interest is the fort and the temple within it. The former is one of the most perfect specimens of military architecture to be found in Southern India, and the latter has a few carvings which by some are thought to rival those of Madura. "The fort is traced on an irregular four-sided figure. The fortifi-"cations consist of a main rampart, broken at irregular intervals "by round towers and rectangular projections. Below this there "is a fausse-braie, ornamented at intervals with machicolated "turrets; there is a broad wet ditch, varying a good deal in width "in different parts, but not laid out in conformity with the trace "of the works. There is a solid masonry counterscarp and covered "way round three sides. On the north side the covered way no "longer exists, as the high road to Salem runs along what would "originally have been the crest of the glacis. The main walls are "built of massive granite stone, admirably cut to point and fitted "together without mortar. The upper parapets are built of, or "lined with, brickwork in which the embrasures are cut." This is evidently the work of European engineers at a late period of the fort's history. "The parapet of the fausse-braie is of solid

CHAP. XIX. VELLORE. Places of interest.

"stonework, the upper row of stones being cut to a semi-circular "shape, and thus presenting an ornamental appearance, as well "as affording loophole defence. The counterscarp is strongly "built of stone in chunam, the crest being at present finished "off with brickwork plastered over. The counterscarp on the "east front is broken by a berm about 7 feet below the crest, "which is carried partly round the south front on the same level "and then drops several feet lower, at which level it is carried "round the west on to the north face and there ceases. On the "south face there is a raised bastion on which the flagstaff stands, "and there are also two small round towers, raised above the "main works, at the south-east and north-east angles. There "are no outworks, caponniers, galleries, or traverses. The old "entrance was by a winding roadway with massive gates, and "protected by a drawbridge; but of late years a straight road has "been cut through the rampart. On the south side there is also "a footway which crosses the ditch on a stone causeway. There is "no other means of entrance across the ditch."[9]

The ditch is supplied with water by a subterranean drain connecting it with a large bathing tank called the Súryagunta, which receives all the drainage of the hills lying east of the town. Formerly the ditch was tenanted by several large alligators, but all have gradually disappeared, shot, it is said, by officers living in the fort. In March 1879 however four young ones were brought from the Palmanér taluk and let free in the water, where they are occasionally seen.

Vellore fort is believed by many to exhibit clear signs of having been laid out by Italian engineers, but according to local tradition it was built by one Bommi Reddi (or Naidu), a native of Bhadráchalam, on the banks of the Kistna. He and Timmi Naidu were the sons of one Yádama Naidu of that place, and left their native town in order to escape from their half-brothers, who had plotted to murder them and take their property. They were journeying to Raméswaram and other holy places, when they halted one day at Vélappádi, and pleased with the neighbourhood, applied to Rájá Karikála Chóla, who lived in a large town called Kailásapatnam, 5 miles south of Vellore, for permission to settle there. This was granted, and the brothers betook themselves to the breeding of cattle and got very wealthy. At last a petty chief, who held Arni, attacked them, but was utterly defeated, which so pleased the rájá that he gave Bommi Reddi many presents and privileges.

The tradition regarding the circumstances which led to the construction of the fort and temple is of course mythical. Bommi

[9] Report of Station Staff Officer.

Places of interest.

Reddi had a cow with five teats, which, he once discovered, used to suckle a five-headed cobra that lived in an anthill in the middle of a pool of water. The reptile was Siva, who in a dream communicated to the Reddi the position of some hidden treasure, and directed him to use it in building a temple. The treasure was found, as well as a lingam, and the temple was begun on the 19th of Panguni in Sukla year, S.S. 1195 (A.D. 1274),[10] the architect being a native of Bhadarikásramam, somewhere in the north of India, who had come down south to visit its temples. The outline of the walls was shown by a prodigy; a hare chased the Reddi's dogs around the anthill, and Siva cried out from the sky that the line traced by the course then run should be followed by the builders. Within exactly nine years the temple was completed and dedicated to Jalakantéswara, or 'Siva residing in the water.'

Meanwhile the architect's son had set out to search for his long absent father, and found him at Vellore. He admired his work, but announced that the temple would be unlucky, as the 'lagnam,' or hour in which it had been begun, was inauspicious. He discovered a fortunate lagnam, and in it began the fort, upon which enormous numbers of workmen were employed, and for which, it is said, stone was brought from Pallikonda, 13 miles distant. When all had been finished, so the story goes, Siva in a dream ordered Bommi Reddi to hand the fortress over to Venkatadéva Maharáyalu of Denkanikóta. He did so in S.S. 1216 (A.D. 1295), and the place was in consequence called Ráyavélúr. The chiefs who reigned at Vellore are, according to the local MSS., the following :—

	A.D.
Venkatadéva Maharáyalu	1295
Krishnadéva Maharáyalu	1325
Vásudéva Maharáyalu	1355
Aswadéva Maharáyalu	1385
Venkatadéva Maharáyalu	1400
Vásudéva Maharáyalu	1428
Krishnadéva Maharáyalu	1446
Aswadéva Maharáyalu	1460
Prabhadéva Maharáyalu	1488
Vásudéva Maharáyalu	1526
Venkatadéva Maharáyalu	1557

[10] On the walls of the temple of Malayampattu, in the Gudiyáttam taluk, is found an inscription which serves to fix the date of Bommi Reddi. It records the fact that that temple was built by "the Great Lord and Poligar Venkata Bommi Náyani Lingamma Naidu" in S.S. 1320 or A.D. 1398. As this Lingamma Naidu was evidently the son of Bommi Naidu, the latter could not have built the Vellore temple much earlier than the middle of the fourteenth century.—ED.

CHAP. XIX. VELLORE. — Places of interest.

The last rájá is stated to have had, by a maid who lit the palace lamps, an illegitimate son named Krishnadéva Ráyalu, of whom he was very fond. He was, however, persuaded to have him put out of the way. The child was handed over to two menials, a dhoby and chuckler, who were directed to destroy his life. He was notwithstanding saved by these two persons, and in A.D. 1586 ascended the throne, and gave to his protectors two forts in the neighbourhood of Vellore, still called the dhoby's and the chuckler's forts.

About the middle of the seventeenth century the Sultan of Bíjapur seized Vellore, and its first Muhammadan ruler was one Khán Khán, who was succeeded by Muhammad Khán. This man's son murdered a dancing girl of the fort temple, and so caused service there to cease and the idol's jewels to be concealed. There are at present wonderful rumours regarding these jewels, which were more probably seized by the Musalmans. Abdullá Khán succeeded Muhammad Khán, and in his time (A.D. 1676) the Mahráttas, under one Tukóji Rao, besieged the fort for a very long time. Tukóji Rao noticed blood coming out of a stone in the village of Chémbákkam, a mile distant from Vellore, and learning in a dream that the stone was the god Chelvavináyagar, he built a temple in that village to the swámi, where service is still carried on. The swámi instructed him to perform a 'sarpayágam' on the banks of the Pálár, which he did, after building a Vishnu temple and brindhávanam close to where the bridge now stands. The result was that a plague of cobras occurred in the fort, and Abdullá Khán, giving up possession, retired to a spot about 2½ miles west of Vellore, where he built a town which he called Abdullápuram, and a palace, the ruins of which still stand on the southern side of the Bangalore road.

Tukóji Rao reintroduced worship into the fort temple, and was succeeded by his son Sinkóji Rao, who was attacked by Zulfikár Khán, and besieged for two years, after which time he received one hundred and fifty thousand gold coins, and gave up the country to the invader. Worship again ceased until after twenty-one years, when a Mahrátta, Sríniváṣa Rao, laid siege to the fort for three years and took it. He reigned seventeen years, and his son Ráma Rao for thirteen, after which Dáúd Khán came from Delhi (A.D. 1708) and ousted the Mahráttas. Shortly after this Arcot was built, and Nabob Sádat-ullá Khán gave Vellore and the neighbouring country in jágír to his brother Ghulám Ali Khán, who was succeeded in Vellore by his son Bákir Ali. This prince during a famine established and endowed a langarkhána (poor-house), which is still continued, the funds being now disbursed by the munici-

pality. Murtizá Khán, his son, was the next killadár, and he was dispossessed by the Nabob Muhammad Ali.

Places of interest.

In the centre of the fort there is at present a parade ground surrounded by the mahâls occupied by the family of Tippoo, and various houses once occupied by the European officers of the garrison. There used to be a large excavated tank in front of the temple, and the rest of the space was covered with streets containing bazaars, while in the north-west corner, where the hospital now stands, was a populous Hindu village. Four broad streets ran round the interior of the fortress, along which the idol's car was annually dragged with great pomp and ceremony. When all these features disappeared seems uncertain, but it was probably before the beginning of the present century.

Of the houses once tenanted by officers one is now occupied by the Sub-Collector's office, while the rest are used as District Munsif's Court, Pension office, Telegraph office, and Christian girls' school. The old European barracks have been converted into a civil dispensary. The mahâls are five in number, viz., the Gumsúr, Kandi, Tippoo, Pátchá Bégum, and Pálkonda mahâls. There is an open space in the line along which the mahâls are built, which is now occupied by the English church constructed thirty years ago. It covers the site of the old palace of the Vellore killadárs, which perhaps displaced that of the Hindu rájás, for no traces of this now remain, nor does any tradition exist regarding its position. The killadár's palace was removed within the memory of persons still living in Vellore.

The temple, which for many years was used as an arsenal, stands near the north-east corner of the fort, and is a most interesting structure. The entrance is topped by a fine gópuram with massive gates and rich carvings. Among other figures is one representing the portly Bommi Reddi, who founded the fort. The shrine is enclosed within an inner line of walls, having a low gópuram over the entrance. It has nothing very remarkable about it, the carvings being rude compared with those in the outer enclosure. This is flanked by long colonnades supported upon carved pillars; but the most exquisite sculpture is found in the Kalliána mantapam, or hall in which the idol was placed when his marriage was yearly celebrated. It stands on the left-hand side on entering, and contains monolithic sculptures of marvellous beauty. The outer line of pillars represents mounted figures elaborately worked. In the mouth of one of the animals was a ball of stone which could be freely turned within its jaws, but could not be extracted. This was, however, destroyed a year or two ago by some mischievous person. The cornice running round the roof is probably the most

CHAP. XIX. VELLORE. Places of interest.

elaborate thing of its kind in Southern India. The centre of the hall is supported upon huge monoliths cut into groups of five pillars, joined by thin stone panels fretted with graceful patterns. The five pillars and the four joining panels are carved out of a single stone, and how the work could have been executed without fracture seems a marvel. Each pillar has upon its faces figures from 1 to 2 feet in height, well proportioned and magnificently chiselled in very high relief, the limbs standing clear away from the background. The two ornaments of the roof are particularly striking, representing three circles of parrots hanging, heads downwards, and holding in their beaks and claws the open petals of a lotus flower. Each is carved from one large stone, and the delicacy of the execution is most remarkable: indeed every stone in this extraordinary building is well worth notice. It is said that the East India Company proposed to send the mantapam to the Prince Regent, to be erected at Brighton, and that each stone had been carefully numbered, with this object in view, when the vessel which was to have carried it to England foundered and the design was abandoned. It would certainly excite much admiration in England, but here little notice is taken of it. Until quite recently disfiguring walls were built between the pillars in order to form an office for the station staff officer, and commissariat bullocks were tethered to the delicate carvings, which they seem to have broken with their horns or hoofs, as many fractures, some of them recent, are observable. Now the station staff office has been removed, its walls pulled down, and the whole mantapam is carefully conserved.

Compared with the Kalliána mantapam no other sculptures in the temple are deserving of notice, but a well near the north-west corner is curious. It is attributed to Krishnadéva Ráyalu, and has a stone doorway at the side, opening upon a centre pivot. This is usually below the water level, but during the famine of 1877–78 the well became almost dry, and then the station staff officer's clerk had the curiosity to descend and explore. Fear of evil spirits deterred others from following him, and his observation seems to have been somewhat hurried, but he states that the passage led into a spacious subterranean mantapam, supported upon stone pillars, and with a door leading to some further passage, which he did not examine. It was probably a tunnel leading to the Pálár, from which river this well receives its supply. The popular belief is that the temple jewels lie concealed in this subterranean mantapam, and are guarded by a malignant evil spirit. The level of the water is now unfortunately too high to admit of examination of the building by the curious, and the supply is too copious to allow of the well being emptied.

Places of interest.

Upon the southern glacis of the fort is the place of arms and the old parade ground, but the former is now being converted into a court-house. Somewhat more than a mile to the south is the central jail, in which cloths, carpets, and mats are woven, tents manufactured and various other industries carried on.

On the western side of the Arcot road and within the limits of the suburb named Arikandampúndi, are the tombs of several members of Tippoo's family, which are of pleasing design, though only built of brick-work plastered over. In 1805 about 15 acres were granted by Government, at the request of Tippoo's sons, as a burial-place. The applicants were however not buried here, as they were removed to Calcutta in the following year, in consequence of the Vellore mutiny, but the female members of the royal family were allowed to remain in the fort mahåls. Of the 15 acres granted less than 3 acres are now covered by their tombs, the rest of the land being given out for cultivation, and the rent used for the repair of the tombs. The chief monuments are those erected over the graves of the following persons :—

Bakshi Bégum	Wives of Hyder.
Fáthma Bégum	
Pátchá Bégum	Wives of Tippoo.
Ahmed u nissa Bégum ..	
Rahimat u nissa Bégum ..	
Fáthma Bégum	Daughters of Tippoo.
Sháhzáda Bégum	
Mirza Rájá Hussain	Son-in-law of Tippoo.
Manaver Bégum	Daughters-in-law of Tippoo.
Amir u nissa Bégum	

There are besides some four hundred minor tombs of connections of the family, servants, eunuchs, and other dependants.

Either owing to the exposed position of the Vellore fort or to the natural love of the Hindu for building drúgs, three of the peaks upon the range of hills overlooking the town have been fortified, and the drúgs are known by the names Sajjaraoghar, Gajjaraoghar, and Murtizghar. Of these the first is the largest and most southerly, and the last the smallest and most northerly. Sajjaraoghar and Gajjaraoghar were, as their names imply, built by the Mahráttas, and Murtizghar by the last killadár of Vellore. The pettah at the foot of the hills was encompassed by a wall, and connected with the hill forts by lines of fortification. Another wall and fosse were carried from the hills to the margin of the Pálár, having a gateway where it crossed the Arcot road. The drúgs are now much dismantled, and the other works, except the fosse near the Arcot road, can with difficulty be traced.

CHAP. XIX. VELLORE. Places of interest.

Pallikonda: Population 2,814; post office; police station; sub-registrar's office; travellers' bungalow; chatram. This place was at one time of considerable importance as the head-quarters of the old Vellore taluk, but since the removal of the tahsildar's office its prosperity has declined, though it still carries on a good deal of trade, which of late years has passed chiefly into the hands of Labbais. The manufacture of gunny is here carried on to a great extent. The town is situated upon the southern bank of the Pálár, just opposite to where the Gudiyáttam stream unites with that river, and upon its southern side rises a high granite hill, which is 2,187 feet above the level of the sea. The town is fairly well built, but is chiefly celebrated now for its temple of Ranganáyakaswámi. The legend is to the effect that Brahma, forsaking Saraswati, proceeded to make a yágam at Conjeeveram, when she transformed herself into a flood (the Pálár river) and flowed towards the yágasála, intending to extinguish the sacrificial fire. Brahma prayed to Vishnu, who tried to obstruct the river by standing in front of it, but the stream merely took another course, seeing which the swámi lay down across it, and thus dammed up its waters until Bramha had completed his yágam. Hence the town was called Pallikondai, 'you lie down,' but this derivation is purely fanciful and the correct etymology is no doubt the obvious one, viz., 'the Pallis' hill.' The sacred name for it is Ádirangam, *i.e.*, the first rangam. The idol is called Ranganádar, a name applied to the deities of Tiruppákkadal (Maddiarangam) and Srírangam (Antiarangam). Of the three places Pallikonda boasts of being the most ancient, while Srírangam is asserted to be the most modern. The Bramhautsavam feast takes place in April or May.

There is here a remarkable cromlech, which Mr. Walhouse describes (*Indian Antiquary*, June 1879, page 164) as the only true cromlech or free-standing dolmen of a non-sepulchral character that he had either seen or heard of on the plains. The capstone of the cromlech is 12 feet long by 8 feet wide and about 2¼ feet thick, supported not by slabs but by six large round boulder-like masses of granite, two at the north end, two at the south and two smaller—not touching the capstone—on the west side. The east side is open. The capstone is about 8 feet from the ground, and on its upper centre are four round depressions, analogous to the 'cup-marks' so often found on megaliths and stones in the north of England, and occurring on pre-historic monuments in Nágpur. The cromlech stands upon a bare granite platform with no soil or excavation for interment beneath, and it seems probable, therefore, that it was intended for a temple or altar. It is figured on page 491 of Mr. Fergusson's *Rude Stone Monuments*.

Places of interest.

Ambúr or *Ámúrpéta* : Population 10,586, of whom 5,684 are Hindus, 4,881 Musalmans, 19 Christians and 2 'others'; union under the District Boards' Act; head-quarters of sub-magistrate; sub-registrar's office; police station; post and telegraph office; railway station (height above sea-level, 1,062·62 feet); dispensary; travellers' bungalow (forest). This is the second largest town in the taluk and has a large Labbai population, who almost monopolise the trade, chiefly in grain and fruits. The town lies upon the south bank of the Pálár, and has a most fertile soil, well watered from the river. Very many topes of orange, cocoanut and other fruit trees have been planted on its borders. The orange gardens are extremely valuable. The Ambúr railway station is within half a mile of the town, and an excellent road passes close by, connecting it with Vellore on the one side and the Salem district on the other. Ambúr drúg is across the river in the Gudiyáttam taluk.

The name Ámúr is supposed to be a corruption of *chámur*, a deer, Krishnápuram, the name of one of the suburbs, being similarly the modern form of Krishnasáran, described as a giant who lived here in olden time, but who was, more probably, one of the early chieftains of the neighbourhood, perhaps one of the Kurumbas. There was very many years ago a large fort at Ambúr, but nothing save the tradition regarding it survives. The local myth asserts that Kailásan, a gandharva, was cursed by Márkandéya Maharishi because he made fun of him, and being born as an elephant, lived on the Ambúr fort hill, 4 miles to the north. Siva promised to restore him to his former condition if he would destroy Krishnasáran, who, during the day, used to take the form of a beautiful deer (chámur) and allure people into his jungle retreats, where he devoured them. Kailásan killed the giant and became a gandharva again. He is now worshipped at Ambúr under the name of Nágéswara, *nága* here signifying elephant. Ambúr is said to be the Greek *ἀβούεα*. The town is probably one of the most ancient in the district, but its importance in modern days only dates from some thirty or forty years back, when the Labbai traders began to settle here and opened up a brisk trade with the Mysore plateau. Most of the town is new, and the houses tiled and well built.

Virinchipuram is situated about 8 miles west of Vellore. Population 3,615; post office; chatrams; railway station of Virinchipuram is across the Pálár in the Gudiyáttam taluk. The village is divided into two parts, Northern and Southern Virinchipuram, separated by a broad stream. It is of no particular consequence as a trading or manufacturing village, but is the most sacred spot in the Vellore taluk. The temple of Márgasaháya Íswara, 'the guardian of travellers,' is an extensive building

CHAP. XIX. VELLORE. Places of interest.

around which the houses of the village are grouped. Traditions current in other parts of the district would lead one to expect that one of the four guardian *Saktis* posted by Bramha north, south, east, and west of Conjeeveram would be worshipped here, but no such story is current, though it is perhaps not impossible that the shrine was originally dedicated to one of the furies, and afterwards consecrated to Siva, who is now worshipped in the form of a lingam. There appears reason to believe that Virinchipuram was once largely occupied by Linga Balija merchants, who perhaps introduced the change of worship. The name Virinchi, signifying Bramha, is in accordance with the tradition of Náráyanavanam and Dévikápuram, the other towns of North Arcot in which *Saktis* are worshipped. The present story regarding Virinchipuram is that the lingam was a very ancient one, and specially revered by travellers who journeyed through the wild country of the neighbourhood, in which many robbers and wild beasts lurked. A Canarese pepper merchant named Dhanapálu Chetti once travelled with his goods to Conjeeveram, and vowed that, should he reach his journey's end in safety, he would bestow the value of ten bags of pepper upon the temple. On his way he was robbed, but an armed horseman suddenly appeared and restored his property. At Conjeeveram he formed the intention of cheating the idol, and in consequence his pepper became cholum. He repented, and it was transformed again into pepper, out of the sale-proceeds of which he built the outermost surrounding wall of the temple. The wall looks quite modern, and is probably not more than two hundred years old. The other portions of the building have evidently been built at various times. The centre shrine is said to have been constructed by one of the Chóla rájás. The Mahámantapam and the interior wall are attributed to a king called Ballikumbaráyar, and the next wall, with the western gópuram and the hundred-pillared hall, to another king Víragumbaráyar. The most beautiful carvings are however alleged to have been made at the expense of Bommi Reddi of Vellore and his sons, who constructed three very fine mantapams, known as the Bommi Naidu mantapam near the entrance on the east, the Akkappa Naidu mantapam on the south, and the Lingappa Naidu mantapam on the north. It is asserted that the architect was the son of the man who built the Vellore temple; if so, he was not so skilful a workman as his father, though his designs and execution possess considerable merit. They are evidently in imitation of those in Vellore, but are not nearly so elaborate. Upon the base of one mantapam is represented a very favourite story told in connection with the temple. A Bráhman widow prayed to the swámi very steadfastly for a son and obtained her desire. Her

Places of interest.

neighbours unjustly concluded that she was no better than she should be, and therefore refused to have the boy's thread marriage performed, or to allow him to succeed to his father's half share in the gurukal or temple priest's mâniam. When he had reached the proper age for being initiated, he happened to be bathing at the Bramha tírtam, into which he sank. His mother was mad with grief, until the boy rose out of the water, wearing new cloths and the sacred thread, and informed the people that he had been taken below by a stranger, who had performed the thread marriage for him, and taught him the mantrams he was now able to repeat. The boy was now allowed to enter upon his priestly duties, but he could not reach to pour his vessel of water upon the lingam, which therefore bent towards him, and has ever since maintained its present leaning position.

After the time of Bommi Reddi the eastern gópuram was built by Achyuta Ráyalu, the son of Krishnadéva Maharáyalu of Vijayanagar, and many improvements were effected by subsequent rulers. On a stone built into the floor of the courtyard is an inscription, dated A.D. 1550, stating that the pavement of the outer courtyard of the temple was laid by Bommu Náyaka; but the most interesting inscription of all is the second one to the right, inside the front gópura of the temple. The date of it corresponds to A.D. 1426, and it sets forth an agreement among the Canarese. Tamil, Telugu and Gujaráti Bráhmans of the kingdom of Padaividu (Padavéd of Pólúr taluk) that henceforth their marriages shall be concluded by *Kanyádána* (the gratuitous gift of the maiden) and that any one who gave a girl in marriage after having received gold, and any one who concluded a marriage after paying gold, should be liable to punishment by the king and should be expelled from the Bráhman caste. (See *South Indian Inscriptions*, vol. i. by Dr. E. Hultzsch.)

Virinchipuram has little trade, but a good deal of cloth is woven by Kaikólans. It contains ample accommodation for travellers and pilgrims in the choultries, which are more numerous here than in any other town of the same size in the district except Tiruttani. There are no less than five annual feasts celebrated here, the chief being the Bramha-utsavam, held in April, when large numbers attend, and all the choultries are full. Until a few years ago saltpetre was manufactured in the neighbourhood.

Virinchipuram was a military outpost of the Mysore troops during the siege of Vellore, and the temple appears once to have been besieged, as marks of cannon ball appear upon its outer walls. Some of the carvings inside are defaced, probably by the Muhammadan soldiery.

CHAP. XIX. VELLORE.

Places of interest.

Kailásaghar is a high hill 2,743 feet above the sea, situated 6 miles south of Vellore. It has a small hill fort built upon the summit, some say by the Mahráttas. At the base of the hill there once stood a large town called Kailásapatnam, often a royal residence in the time of the Chóla kings, but now effaced. Within the walls of the hill fort a small bungalow was built some twenty years ago by a former Sub-Collector and this is now maintained as a forest bungalow. The temperature is charmingly cool, and there is an ample supply of pure water but no plateau. A bridle-path leads to the bungalow from the road between Vellore and Ussúr.

WÁLÁJÁPET TALUK.

WÁLÁJÁPET.

General description.

THE Wálájápet or, as it is more commonly called, the Wálájá taluk is bounded on the north by the Kárvetnagar zemindári; on the east by the Chingleput district; and on the south and west by the Arcot and Gudiyáttam taluks respectively. The Pálár forms the southern frontier line, and the Ponné that on the west, while the Korttalaiyár marks for a short distance the eastern border. The area of the taluk is 484 square miles. The present taluk was originally formed into two called Kávéripák and Sholinghur, which in 1861 were combined, and with a few villages of the old Tiruvalam taluk formed into the present division.

Hills.

For the most part the surface of the taluk is flat, and the soil more or less sandy, but in the north several hills occur, the outliers of the range which fills the west of Kárvetnagar. The elevation of these is inconsiderable, not being more than about 500 feet above the plain. The Sholinghur hill, upon which is perched a celebrated temple, is the highest and most remarkable.

Rivers.

The Pálár and the Ponné are the two principal rivers of the taluk. The name of the Pálár signifies the 'milk river,' and is by some thought to refer to its freshes coming down with a rapidity suggestive of the boiling over of milk; but this seems unlikely, as the rise of the river is not unusually sudden. One of the sacred legends related of it tells us that Siva being displeased with his riding bull, transformed him into the hill of Nandidrúg in Mysore, where the Pálár rises. Nandi prayed to Vishnu, who interceded with Siva, and finally Ganga, who resided in Siva's head, consented to bless the hill by falling upon it in a stream of milk. Thus the Pálár originated, and from its origin it is supposed to have the power of purifying from sin. The most noteworthy feature connected with the river is its anicut, which was built in 1857. It is described in Chapter X.

Rivers.

The Ponné, or Poiny, which rises in the Chendragiri taluk near Dámalcheruvu, receives the waters of the Airála, Aragonda and Chittoor streams, and has become a river of considerable size by the time it enters the Wálájá taluk. It flows into the Pálár close to Tiruvalam. The anicut across it, which resembles, in its general plan, the Pálár anicut, was built in 1853. The Ponné is more frequently in flood than the Pálár, and is, therefore, more useful for purposes of irrigation.

The only other stream is the Korttalaiyár, which rises at the surplus of the great Kávéripák tank, and flowing to the north-east for some 25 miles, turns to the north, and 5 miles beyond the border it joins the Nagari river. This river is the chief source of supply of the Red Hills tank, which supplies the city of Madras with drinking water.

Soil.

The soil of Wálájá is generally poor, being black and red clay mixed with much sand and gravel. The absence of jungles makes the system of farming bad, manure being scarce and therefore dear. The outturn of crops is, therefore, poor.

Forests.

The area of the Government forests is only 10,500 acres, and of this extent the Ammúr block, near the Arcot railway station, consists of 6,000 acres. The hills, as a rule, are quite destitute of jungle and the efforts of the Forest department have been chiefly directed to tracts lying along the railway. The Bánavaram reserve, near the Sholinghur railway station, offers striking evidence of the good effects of conservation. The proportion of forest is only one-twenty-fifth of an acre to each inhabitant, which is lower than that found in any other taluk. Much even of the firewood required is imported from Chittoor or Kárvetnagar.

Climate.

The climate is dry and healthy, and fever is comparatively uncommon. The sea breeze penetrates to Arkonam, and even so far as Ranipet. The average annual rainfall is about 40 inches at Wálájápet itself, and somewhat less in the eastern part of the taluk round Arkonam.

Communications.

The main line of the Madras railway enters the taluk on the east near Chinnamapet. At Arkonam this line divides, the north-west branch going to Bombay and the south-west to Calicut. The latter runs right through the taluk, with stations at Minnal, Sholinghur (Bánavaram), Talangai and Arcot (Ammúr). On the former there are no stations within the taluk. The South Indian line from Arkonam to Chingleput also runs through a portion of the taluk, but the only station within its limits, except the junction, is Pullúr, which is just on the border.

The total length of roads is 176 miles, the most important being the Calicut trunk road, which traverses the taluk from east

CHAP. XIX. WÁLÁJÁPET.

to west, passing through Kávéripák, Wálájápet and Ranipet. At the latter place there is a causeway across the Pálár, called the Wenlock causeway after the Governor who opened it, and the old crossing through heavy sand, near Tiruvalam, is thus avoided.

Administration.

The taluk lies in the Head Assistant Collector's division. The chief local revenue officer is the tahsildar (salary Rs. 250). He is also a magistrate, but the bulk of the magisterial work is performed by the stationary sub-magistrate at Wálájápet and the deputy tahsildar and sub-magistrate at Arkonam. The taluk forms a single police division under an inspector, and is divided into nine police station charges. In respect to civil actions it is situated within the jurisdiction of the district munsif of Sholinghur. The number of villages, including the towns of Wálájápet and Sholinghur, is 252, and all but one are inhabited. Of the total number, 232 are Government villages, 14 are shrotriem or inám, four are zemin, and two are ijára or rented.

Population.

The population in 1891 was 239,349, of whom 119,798 were males and 119,551 females. The population of the Government villages is 224,514. Hindus number 231,352, Musalmans 6,291 and Christians 1,698. The population has increased by 20·17 per cent. since 1881, and there are now 495 persons to the square mile. The number of occupied houses is 33,522, and there are on an average 7·14 inmates to each house. Of the male population 81·82 per cent. are illiterate, 14·24 per cent. can read and write, and 3·94 per cent. are learning. Of the females 99·09 per cent. are illiterate. Tamil is the mother-tongue of 183,484 persons, Telugu that of 48,099 and Hindustani that of 4,572. Classified by means of subsistence the population consists of 137,632 landholders and tenants, 28,630 agricultural labourers, 13,342 general labourers, 15,645 traders, 13,139 weavers, 10,349 other artisans and 20,612 'others.'

The land.

The area of *ryotwári* land in the taluk is 271,900 acres, that of *minor ináms* is 15,306, and that of *whole inám* villages 22,400 acres. Of the ryotwári land about 11,900 acres are under forest and 45,800 acres are not available for cultivation. Of the remainder 152,000 acres are in occupation, and the area available for extension of cultivation is thus 62,200 acres, but nearly 26,000 acres of this are said to be unfit for tillage. The area cropped in 1892–93 was 130,000 acres of ryotwári land and 10,500 acres of inám, or about 0·63 of an acre per head of the population of Government villages. Including the area cropped more than once the extent was 166,200 acres. Rice is the principal crop and is grown on nearly 73,000 acres. There are nearly 10,000 acres under oil-seeds, and over 5,000 acres under indigo. Ragi, cumbu

The land.

and horse-gram are the principal dry crops. Of the total area of ryotwári holdings in fasli 1302 the dry lands comprised 91,100 acres and the wet or irrigated lands 55,900 acres. The average assessment was Rs. 1–0–6 for dry and Rs. 5–2–7 for wet, or Rs. 2–9–7 for all lands taken together. There were in that year 20,479 single and 10,036 joint pattás and 14,974 of the former and 5,385 of the latter were for sums below Rs. 10. The normal land revenue of the taluk is Rs. 4,07,000, and the cesses charged on land revenue amount to Rs. 61,000.

The principal irrigation is from the Pálár and Ponné anicuts. The largest of the tanks in Wálájápet is that of Kávéripák, fed from the Pálár river, which irrigates the lands of twenty-three villages. Other important reservoirs are those of Mahéndravádi, Sholinghur, Perungánji and Nágavédu. There are altogether 365 tanks, 40 river channels and 52 spring channels, besides 29 private tanks. There are also 12,905 wells, of which 5,296 are used to supplement other sources of irrigation. The total area irrigated in 1892–93 was 70,000 acres, but if the area cropped more than once be included again for each crop the area irrigated was about 96,000 acres.

The agricultural stock in the Government villages is shown in the marginal table. Interpreting ploughing cattle to mean bulls, bullocks and male buffaloes, there is one pair to every 5·95 acres in occupation, the district average being one pair to 5·45 acres; there are 16 cows and cow buffaloes to every 100 inhabitants, against a district average of 19; and there are 73 sheep and goats to each hundred acres in occupation, the average for the district as a whole being 83.

Bulls and bullocks	47,142
Cows	26,973
Male buffaloes	9,098
Cow buffaloes	9,781
Young stock	33,001
Sheep	99,152
Goats	22,933
Ploughs	25,914
Carts	4,649

Products.

The chief mineral product is granite, which is very extensively quarried at Bánavaram and Mahéndravádi, where it is dressed and exported to Madras. Lime is obtained in several places, and earth-salt was once manufactured at Kízhvidi, as was iron at Kódakal. Both of these industries have, however, been discontinued. The only manufactures are the weaving of cloths and carpets and the dyeing of cloth. Coarse cotton cloths used by the people are produced in very many villages, but chiefly in Sholinghur, Minnal and Panappákkam, and are exported to Madras. In Wálájápet the better kinds are made not only from cotton but also from silk. There is a large community of dyers in this town, where are made and sold thin cotton carpets (jamkánas) and thick woollen rugs,

CHAP. XIX. WÁLÁJÁPET.

not unlike those of Mysore, the price being very moderate. Painting on cloth is also practised by a few in the town. The satin cloths made here are chiefly used by Muhammadans for trousers, and are very good in quality, colour and design.

Places of interest.

Wálájápet, or as it is more usually called by the natives *Wálájánagar*, is the chief town of the taluk. It has a population of 10,485, of whom 9,645 are Hindus, 833 Musalmans and 7 Christians. The number of occupied houses is 2,167. As many as 2,893 of the inhabitants are supported by trade and only about 1 200 by agriculture. The weavers and their families number 1,658. The town is a municipality under the District Municipalities Act, and the municipal income amounts to between Rs. 14,000 and Rs. 15,000. It is the head-quarters of the tahsildar, the stationary sub-magistrate, the police inspector and a sub-registrar. It has a police station, a post and telegraph office and a dispensary. The town is situated 68 miles from Madras and 3 miles north of the Pálár, towards which it has a natural drainage. It is a remarkably well built, neatly arranged, and cleanly town. It covers an area of nearly a square mile, and is cut into two almost equal portions by the trunk road from Madras. The streets, which are either parallel with or at right angles to this road, are broad and well drained, many of them having masonry gutters, and all being a pattern of cleanliness. The town is a modern one, to which fact no doubt the broadness of its streets and their good arrangement are due. Ráyóji, the prime minister of Muhammad Ali (Wálájá), founded it towards the close of the last century, and called it after the nabob. Its site is on high ground, and there are signs of an attempt at digging a surrounding moat, which was apparently never completed. The water-supply is ample, twenty-one drinking water tanks being scattered about it, besides nearly a hundred public wells, all attributed to Ráyóji, who also, for the convenience of merchants, built eighteen pettahs or squares, containing convenient shops surrounding a small temple in the centre. In order to tempt merchants from other places, he is said to have exempted the traders of the new town from taxation, which had the effect of producing an exodus of rich Canarese traders from Lálápet, then a large trading centre, but now a straggling agricultural village 6 miles distant from Wálájápet, and situated in the midst of fine drinking and bathing tanks, with other signs of departed greatness. Within a short time Wálájápet became one of the busiest marts in Southern India, and it is recorded that a larger assortment of goods could be procured in it than in any other place south of the Kistna, except Madras. It carried on a very large trade, chiefly in grains and cotton, with the Presidency town on one side and Mysore and the Ceded Districts on the other.

Places of interest.

Hundreds of cattle laden with merchandise daily entered and left the town, but now comparatively little trade is carried on. Weaving in silk and cotton, dyeing, carpet-making and the manufacture of oils chiefly employ the people. The satin cloths of Wálájápet are still excellent, but the carpets have been spoilt by the introduction of aniline dyes. In ordering carpets, therefore, the colours should be carefully specified and the use of aniline dyes be interdicted. The grain trade has travelled to Vellore, and the railway carries cotton directly to Madras from Cuddapah and Bellary. The town is evidently decaying. In 1871 the population was 12,000, and the increase, since 1881, is only 98. The population is now about 16 per cent. less than it was twenty years ago.

The public buildings of the town are not remarkable. A moderately large temple, a few good choultries, a meat and a vegetable market, and a dispensary complete the list. The last was built by Dr. H. M. Scudder, of the American Mission, from funds raised in the district. On the eastern side of the town is a People's Park, a rather unsuccessful attempt of the Municipality to supply the public with a place of open-air resort. There is a very good Government Anglo-Vernacular School in the town.

Ranipet: The population, including that of the village of Karai, of which Ranipet officially forms a part, is 4,544, of whom 3,168 are Hindus, 1,041 Musalmans and 335 Christians; union under the District Boards' Act; post and telegraph office; police station; hospital; chatram at Hassanallipet; railway station (Arcot) 4 miles away.

Ranipet is 2 miles to the west of Wálájápet, and upon the left bank of the Pálár, just opposite to the town of Arcot. Until 1850 it belonged to the Arcot taluk. Up to 1855 it was a military cantonment. In that year the troops were removed, but in 1861 the 41st Regiment occupied quarters here for a short time. In the early part of the century it was a very considerable station, having a large body of European and Native cavalry, besides infantry, quartered in the cantonment. The European portion of the place now wears a most desolate aspect, most of the bungalows being out of repair, and many altogether dismantled. It is at present the head-quarters of the Head Assistant Collector, of a Military Officer in charge of pensioners, and sometimes of an officer of the Public Works Department. Owing to the cheapness of house-rent many European pensioners used to live here, but their numbers are now small. In the unoccupied barracks the families of sepoys upon foreign service are accommodated.

The country around Ranipet is flat and open, but to the north a few low hills rise, which differ from those of the rest of the

CHAP. XIX. WÁLÁJÁPET.

Places of interest.

district in that they are not rugged, and being clothed with a thick growth of grass, have after the rains a fresh and verdant appearance. The town was built, about the year 1771, by Sádatullá Khán in honour of the youthful widow of Désing Rájá of Gingee, who committed sati upon her husband's death. There is a favourite Telugu ballad which describes how Désing Rájá refused to pay tribute to the nabob, and, girt with a magic sword, sallied out to meet him in battle near Gingee. He at first defeated the Muhammadan troops, but the powers of his weapon were only to last for a short time, and when the nabob resumed the contest, Désing, in spite of the utmost gallantry, was overcome and slain. Out of respect for his valour and his wife's devotion, the nabob founded a new village opposite to Arcot, and named it Ranipet. It does not appear to have been of much importance until the place was constituted a European cantonment. It then rapidly extended and absorbed the adjacent village of Hassanallipet. It is an ill-arranged place, with narrow and rather dirty streets, and without any public buildings worthy of remark. The troops have left long lines of barracks, hospital buildings, store godowns, a church, racquet court, and race-course. There is a considerable Native Christian community, most belonging to the Roman Catholics, and the rest to the American Mission, both of whom have churches in the town. There is a large dispensary supported by the Local Funds, but under the management of a doctor of the American Mission.

Every Friday a very large cattle fair is held on the parade ground north of the town. A larger number of cattle are here bought and sold than in any other place in the district.

The town has little in the way of manufactures; but there is a large distillery belonging to Messrs. Morison and Sons.

About a mile east of Ranipet is a remarkable tope extending along the Pálár for a distance of about 3 miles. It is known as the Naulakh bágh, since it is supposed to contain nine lakhs of trees, chiefly mango, orange, cocoanut and other fruit trees. It was planted by one of the early nabobs, and has suffered many losses in the passage of time, numbers of the trees having died from old age without being replaced. A fine pool of water exists in the centre, from which a channel leads to a broad expanse of paddy land. The local legend states that when Arcot was first occupied by the Muhammadans the country around was covered with woods, which the nabob cut down. The birds that were thus deprived of their nesting-places, flocked to the palace and tormented the nabob with their plaintive cries until he appeased them by planting this extensive tope.

Places of interest.

On the site of the Naulakh bágh there formerly stood two of the six forest temples of the rishis, erected by a Chóla rájá in days when all the country was under forest (whence the name *áru-kádu*, six forests). These two shrines were in honour of Gautama rishi and Visvámitra rishi. The Muhammadans utterly destroyed the former, and left but little of the latter, when the tope was laid out. The other four temples are at Púnkádu (the flower forest) near the Pálár anicut, Véppúr (the village of neem trees), Visháram and Vannivédu. A seventh temple, in honour of Átréya Maharishi, was subsequently constructed at Kudimallúr or Gudumallúr on the river.

Vannivédu, about a mile to the south of Wálájápet, on the Pálár, contains the remains of one of the six forest temples referred to in the foregoing notice of Ranipet. This temple was erected in honour of Agastya rishi.

Kudimallúr: Population 877; is on the Pálár, 3 miles from Wálájápet. There are the remains here of one of the six forest temples erected by a Chóla rájá in days when all the country was under forest. It was built in honour of Átréya Maharishi in the bed of the Pálár. The handsome green stones with which it was built were carried off to Arcot and used in raising the tomb of Sádat-ullá Khán, but the villagers have repaired the shrine with ordinary granite.

Sholinghur or *Sólangipuram:* Population 6,416; union under the District Boards' Act; head-quarters of a district munsif and a sub-registrar; police station; post office; chatram. The Sholinghur railway station is 7¼ miles away from the town. There is no travellers' bungalow at Sholinghur itself, but there is a small forest hut near the railway station (Bánavaram).

The name of this town is a contraction of the words Chóla-linga-puram, and was given to it because one of the Chóla rájás here found a natural lingam, and built a temple over it, called the Shóléswara temple. It is in the middle of the town, and apparently one of the most ancient, though it is not now much regarded. It was here that Ádondai was encouraged by a vision to resume his contest with the Kurumbas, by whom he was at first defeated. The town of Sholinghur is extensive, and a somewhat large proportion of the population are traders, weavers, or oil-mongers. A brisk trade is carried on in the bazaars daily, and at the weekly fair; but it is from its temples that it derives its chief importance. Besides that of Shóléswara, there is another temple within the town dedicated to Bhaktavásala, of fine proportions and a good example of Hindu architecture. It is not very ancient, and was probably built by one of the Vijayanagar kings. A noble

CHAP. XIX. WÁLÁJÁPET. — Places of interest.

mantapam, reminding one of those of Vellore and Virinchipuram, has been begun in front of the building, but only the basement is completed, and the elaborately carved pillars lie half buried in the soil. The other chief shrines lie outside the town. The most celebrated is that of Narasimhaswámi, situated upon the summit of the loftiest hill. A flight of stone steps, built by Ráyóji, conducts the pilgrim to the summit, a very cool and airy spot, from whence a magnificent view of the plain country, covered with tanks and cultivation, may be obtained. Pilgrims visiting Tirupati and Conjeeveram generally make a point of visiting this temple and remaining in Sholinghur three or four days. In April or May there is a large feast in honour of the swámi. The hill is believed to have risen out of the plain at the command of Bairéswara, and to have continued rising until it grew so lofty that Indra was annoyed and got Balarάman to press it down, when it subsided to its present height. There are said to be fourteen holy peaks in the vicinity, but this is the holiest.

At the foot of Ráyóji's ascent is a charitable institution founded by him and called the Annadánam, or rice-giving choultry. He endowed it with lands, which the company resumed, giving instead an annual allowance of Rs. 1,280, now expended by the Local Fund Board. Only Bráhmans are fed; the worshippers in the temple, who stay sometimes for six months and sometimes for years, receive a daily dole. Pilgrims get food for the few days of their stay, and on Sundays, in the month of Kárthigai, about two hundred of the Bráhmans resident in the town are fed. On the establishment is a pújári who daily offers up prayers in the name of the founder, whose sáligráms are placed in the building. Close to the choultry is a very deep well, by some alleged to be as deep as the temple is high. It was dug at Ráyóji's expense.

Upon a lower hill to the east is a temple of Ánjanéya Swámi, which is not so pretentious as its neighbour, but enjoys as wide a reputation. Women thought to be possessed by evil spirits are brought before this swámi to be cured, and his fame attracts a very large number of those who visit Sholinghur. After bathing in a pool half way up the hill, the sufferers enter the temple and sit in front of the image. At last they are said to lose all self-control and to roll about in a frenzy, with dishevelled locks, and uttering incoherent expressions during an hour or two, after which a little holy water is sprinkled upon them and they lie down senseless. Upon awakening they are found to be perfectly sane. Every other disease is also believed to be curable here, the patients spending nights and days in the temple, for a month or more, until the swámi in a dream gives them leave to depart, and then they find themselves cured. It is not unusual for educated natives

to adopt this method of treatment, which is presumably only efficacious by acting powerfully upon the imagination.

Places of interest.

Another fine temple lies below Narasimhaswámi's hill upon the plain to the west. It is now in ruins, struck, it would appear, by lightning, and its finely carved columns lie about in confusion. The sculptures possess some merit and the ruin deserves a visit.

There are very many sacred pools or tírtams about Sholinghur. The chief is the Bramha tirtam, in which people bathe on Thursdays. When Siva tore off one of Bramha's five heads, the latter is said to have come here, and digging the pool, worshipped Narasimhaswámi until his head grew again. When Indradijumna, king of Mandarapuram, fought with certain rákshasas, Náráyanaswámi sent Ánjanéya Swámi to help him, after which Ánjanéya settled on the lower hill and dug the Hanumanta tírtam. All the others, some dozen in number, have fables attached to them. Válmíki rishi is believed to have done penance at one of them for 87,000 years, after which he was ordered by the swámi to compose his Rámáyanam, which he did in this place.

In the neighbourhood of Sholinghur, in 1781, was fought the battle between Coote and Hyder, in which the latter was defeated. Two large Muhammadan tombs by the side of the road on the south of the town mark the spot where the bodies of the slain of the Mysore army were interred in two common graves.

Ayal: Population 790; 2½ miles north of Sholinghur railway station; contains two ruined temples said to have been built by a Chóla king. A set of Vijayanagar copper-plates, evidencing a grant by king Déva Ráya in 1427 A.D., were found here.

Karikal: Population 1,060; near Sholinghur; contains two ruined temples said to have been built by Narasimha Ráya of Vijayanagar. There are several 'illegible' inscriptions on the walls. Near the temple of the village goddess (Ponnamma) is a rock with inscriptions in 'unknown characters.'

Kódakal: This is a considerable village about 5 miles from Sholinghur with a population of 3,071. It contains a ruined Vishnu temple, said to have been built by a Chóla king. Some pillars near the tank sluice are said to bear the sovereign's emblems. The idol of the temple and a copper-plate sásanam are believed to be buried in the yard of one of the houses in the village.

Perungánji: This village was formerly a great Jaina stronghold. Jaina images are to be seen lying under the tank bund and near the sluice, and also under a large tree in the village.

Ponnai, *Ponné* or *Poiny*: Population 4,794; post office. This village is close to the Ponné anicut. There is an old fort

CHAP. XIX. WÁLÁJÁPET.

Places of interest.

here, believed to belong to Kurumbar days, and near it are some very curious examples of cromlechs and stone circles. Two old temples here are supposed to have been erected by the Chólas.

Kávéripák: Population 6,259; police station; post office; travellers' bungalow. A flourishing agricultural village, lying to the south of the bund of the large tank, to which it gives its name. Its population is chiefly composed of cultivators, and a relatively high proportion of them are Bráhmans. There was formerly a small fort near the tank bund, which is now destroyed.

Kávéripák was the scene of a great victory by Clive over Rájá Sahib and his French allies in 1752. The battle was fought in the moonlight and the success of the British arms was won by Clive's skill in turning the enemy's position. The fort of Kávéripák was occupied by the French and English in turn during the wars of the Carnatic.

The tank is the most extensive in the district, having a bund about 4 miles long, stretching from north to south. It has, of course, a fabulous origin assigned to it, a certain recluse being said to have formed a desire to construct a reservoir at this spot. His piety secured to him the power, for a divinity instructed him to fill an old basket with soil and walk forward in faith. Carrying out his instructions he found that the soil which leaked from the interstices in his basket had been increased so greatly as to form a magnificent embankment. Another legend, which may perhaps have some truth in it, says that in the time of Chenna Bellálen, in S.S. 729, fifty-six kings agreed to join in constructing a great anicut across the Kávéri. One of them, Vikrama Chóla of Cashmere (?), was too late, and his share was divided between the other fifty-five rájás. When his contribution arrived it was spent in restoring an agraháram, or Bráhman village, which Bhója Rájá had caused to be built, but which had fallen to decay in the time of the Jain rule. The name Kávéripák has, of course, reference to the anicut across the Kávéri river, for which the money was originally intended.

Upon the tank bund is a comfortable little bungalow, with a pretty view over the water towards the Sholinghur hills. Wild duck and other water fowl are abundant. The tank, which is fed by a channel from the Pálár, is rarely dry, but has much silted up in the course of years. It is said that there used to be a boulder in the middle of the bed, covered with an inscription, which is now hidden by the deposit of silt.

Mahéndravádi: Population 827; is another village with a fine tank, the date of the construction of which is unknown. It was once a large town and 3 miles east of it is Kízhvídi, so called because it originally formed the eastern street of Mahéndravádi.

Places of interest.

Not far from the tank are the traces of fort walls, and within the enclosure a small temple excavated out of a large boulder. It bears an inscription which has not been deciphered. The work may be safely attributed to the Jains or Buddhists, who were the authors of other rock cuttings in the district, and perhaps Mahéndravádi may have been one of the fortified places of the Kurumbas. The tank must originally have been larger than that of Kávéripák, and served lands some 7 or 8 miles distant. The bund was enormously high, and might be restored to its original height, in which case a great extent of land could be brought under irrigation.

Panappákkam: Population 4,429, of whom more than half are weavers; post office; chatram. This village lies 13 miles east of Wálájápet on the road from Kávéripák to Arkonam. It contains an old temple of Mayúranádhaswámi said to have been built by the Chólas. There are several inscriptions on the walls.

Tirumálpúr: Population 2,085, of whom 856 are weavers; police station; chatram. This village is close to the eastern border of the taluk, about 8 miles from Panappákkam. It contains an old Siva temple with inscriptions.

Arkonam has sprung into importance only since it became a railway junction station. The height of this station above sea-level is 295·67 feet. It has a population of 4,236, many of whom are railway employés. The arrangement of the new town near the station is good, and its sanitation is fairly attended to.

It is a union under the District Boards' Act; head-quarters of a deputy tahsildar, who is also a magistrate, and of a sub-registrar; police station; dispensary; post office; telegraph office at railway station; chatram; small Forest department bungalow, and also sleeping accommodation at railway station.

Arigalavádi: Population 962. This village, which is the head-quarters of the Arigalavádi muttá, is situated about 4 miles south of Arkonam on the Conjeeveram road. The origin of the muttá is obscure, but in fasli 1219 it is said to have contained eight villages; at present it consists of only four. The present proprietors acquired their title by purchase. The peshkash is Rs. 2,016, and the cesses amount to Rs. 366. The population of the muttá is 2,964.

Munnal or *Minnal*: Population 2,652; railway station; police station; post office. There is an old Vishnu temple here.

Lálápéttai: This was once a flourishing trading centre, but many of its merchants removed to Wálájápet, attracted by the favourable terms offered to them on the founding of that town, and the place is now a mere village with a population of 1,258, most of whom are agriculturists.

CHAP. XIX. WÁLÁJÁPET.

Places of interest.

Valarpuram : Population 2,002; is 5 miles east of Tiruttani railway station. It contains a ruined temple of Tándavéswara said to date from Kurumbar days. There are some old inscriptions on the walls. The Vishnu temple in this village is said to have been built by Achyutadéva Ráya of Vijayanagar.

WANDIWASH TALUK.

WANDIWASH.

General description.

THE Wandiwash taluk lies in the south-east corner of the district, and is bounded on the north by Arcot; on the east by Chingleput; on the south by South Arcot; and on the west by Arni and a portion of Pólúr. It has an area of 466 square miles.

Hills.

The physical appearance of Wandiwash is that of a level plain with a very few rocky hills rising out of it, the two principal being Davalagiri close to the kasba town, and Nedunkunam about 17 miles to the west of it.

Rivers.

The principal river is the Cheyár, which enters the taluk on the west, and, cutting off a small corner, forms the boundary between it and Arcot. An anicut was built across it in 1856. The only other stream of importance is the Sukhanadi or Wandiwash river, which rises a short distance to the west of the kasba, and flowing eastwards unites with the Pálár in the Chingleput district. It supplies water to three large villages.

Soil.

The soil is usually poor, having much sand and gravel mixed with red and black clays, and being in parts much impregnated with soda, which effloresces during the dry season and renders the ground sterile. About one-third of the area consists of black soils and two-thirds are classed as red.

Forests.

Like Arcot and Wálájápet, Wandiwash is very poorly off for forests, the total area of Government reserves being about 10,700 acres. This gives only three-fiftieths of an acre to each inhabitant, and if all the stock of the taluk were grazed in the taluk forest each acre would have to support 7 head of cattle and 11 sheep and goats. There is, however, plenty of forest in the adjoining taluk of Pólúr, on the Javádi hills.

Climate.

The taluk is, on the whole, a healthy one. The mean annual rainfall is about 46 inches, but the variations are very great. Thus the fall was 84 inches in 1884 and 74 inches in 1887, but in 1885 it was 38 inches and in 1890 the amount received was only 30 inches. That year was indeed a disastrous one and the following season being also unfavourable, there was a degree of scarcity and distress that amounted to a famine.

Communications.

The taluk has no railways within its borders, but the Villupuram-Guntakal line and the Arkonam-Chingleput branch of the South Indian Railway are fairly easy of access from the Wandiwash villages. The total length of roads is 123 miles. The most important are the road from Arcot railway station through Wandiwash to Tindivanam; the road from Arni through Wandiwash to Chéyúr, crossing the railway near Ac'charapákkam station; the road from Wandiwash, through Chetpat, to Pólúr (railway station); and the road from Wandiwash to Conjeeveram (railway station).

Administration.

The taluk lies in the Deputy Collector's division. The chief local revenue officer is the tahsildar (salary Rs. 200). He is also a magistrate, but the bulk of the magisterial work is performed by the stationary sub-magistrate at Wandiwash. The taluk forms a single police division under an inspector, and is divided into four police-station charges. In respect to civil actions it is situated within the jurisdiction of the district munsif of Arni. The number of villages is 285 and all are inhabited. Of the total number, 281 are Government villages, and four are shrotriem or inám.

Population.

The population in 1891 was 177,723, of whom 88,935 were males and 88,788 females. The population of the Government villages is 175,941. Hindus number 168,944, Musalmans 2,966, Christians 1,485 and Jains 4,327. The population has increased by 20·00 per cent. since 1881 and there are now 381 persons to the square mile. The number of occupied houses is 22,970 and there are on an average 7·74 inmates to each house. Of the male population 84·33 per cent. are illiterate, 12·29 per cent. can read and write and 3·38 per cent. are learning. Of the females 99·79 per cent. are illiterate. Tamil is the mother-tongue of 151,178 persons, Telugu that of 23,954 and Hindustani that of 1,926. Classified by means of subsistence the population consists of 113,844 land-holders and tenants, 23,341 agricultural labourers, 10,122 general labourers, 8,042 traders, 3,298 weavers, 7,276 other artisans and 11,800 'others.'

The land.

The area of *ryotwári* land in the taluk is 282,500 acres, that of *minor ináms* is 12,582 and that of *whole inám* villages 2,560 acres. There are no zemindáris. Of the ryotwári land about 10,800 acres are under forest and 87,700 acres are not available for cultivation. Of the remainder, 138,000 acres are in occupation and the area available for extension of cultivation is thus 46,000 acres, but nearly 9,200 acres of this are said to be unfit for tillage. The area cropped in 1892–93 was 126,200 acres of ryotwári land and 9,100 acres of minor inám, or about 0·77 of an acre per head of the

CHAP. XIX. WANDIWASH.

The land.

population of Government villages. Including the area cropped more than once the extent was 170,400 acres. Rice is the principal crop and is grown on nearly 62,000 acres in Government villages. There are nearly 26,000 acres under oil-seeds, 1,500 acres under condiments and spices and about 800 acres under orchard and garden produce. Ragi, cumbu and cholum are the principal dry crops. Of the total area of ryotwári holdings in fasli 1302 the dry lands comprised 87,600 acres and the wet or irrigated lands 44,000 acres. The average assessment was Rs. 1–3–9 for dry and Rs. 5–6–11 for wet, or Rs. 2–10–2 for all lands taken together. There were in that year 21,347 single and 14,001 joint pattás and 15,251 of the former and 8,138 of the latter were for sums below Rs. 10. The normal land revenue of the taluk is Rs. 3,76,000 and the cesses charged on land revenue amount to Rs. 54,000.

The principal irrigation is from the Cheyár anicut. Nearly one-half of the taluk is benefited by this anicut; the tanks which are fed by it are confined to Wandiwash, Purisai and Kaduganúr firkas. The other three firkas, viz., Tellár, Désúr and Peranamallúr solely depend on rain. The chief tanks are those of Maradádu, Anakkávúr, Purisai, Vázhkadai and Síshamangalam, the three first being of one year's capacity. There are altogether 567 tanks, one (Cheyár) anicut and 29 spring channels, besides two private tanks. There are also 10,730 wells, of which 8,089 are used to supplement other sources of irrigation. The total area irrigated in 1892–93 was 58,000 acres, but if the area cropped more than once be included again for each crop the area irrigated was about 93,000 acres.

The agricultural stock in the Government villages is shown in the marginal table. Interpreting ploughing cattle to mean bulls, bullocks and male buffaloes, there is one pair to every 6·40 acres in occupation, the district average being one pair to 5·45 acres; there are 18 cows and cow buffaloes to every 100 inhabitants against a district average of 19; and there are 81 sheep and goats to each hundred acres in occupation, the average for the district as a whole being 83.

Bulls and bullocks	36,823
Cows	23,911
Male buffaloes	10,257
Cow buffaloes	8,501
Young stock	28,895
Sheep	82,668
Goats	39,793
Ploughs	23,997
Carts	2,057

Products.

Besides agriculture the only industries are the weaving of cotton cloths and rush (*kóré*) mats. There are altogether about a thousand looms for cloth in the taluk, chiefly in the village of Ammayapet; and in Wandiwash the Labbais have several hundred

Places of interest.

looms for the manufacture of mats. The 'kóré' rush is cultivated upon irrigated land, but the local supply is insufficient for the workmen, who import it to a large extent from Tindivanam, in South Arcot, and from Pondicherry. The rush is split, dried, and dyed in red, yellow, black, and other colours, and is worked into pleasing patterns.

Wandiwash: Population 5,185, of whom 4,180 are Hindus, 970 Musalmans, 30 Christians and 5 'others;' of the total about 2,300 are agriculturists and nearly 1,300 are traders. Chief town of the taluk and head-quarters of the tahsildar, sub-magistrate, police inspector, and sub-registrar; union under the District Boards' Act; police station; post and telegraph office; dispensary; travellers' bungalow; chatrams.

The name, more correctly Vanduvási, is thus accounted for. A Pándian king, named Jéyya Kandan, suffered for many years from a painful internal malady, to cure which he visited various temples, but without avail. He was at length directed by a dream to an anthill, in which by digging he discovered a sacred lingam over which he built a temple. He was by this means rendered whole, and called the place Vanduvási, 'I came and was cured.' The lingam still bears the mark of a blow from a crowbar which is said to have struck it when it was discovered. Another derivation, however, is from *vanda*, hundred (Tel.), and *vási*, an inhabitant.

The town is chiefly interesting from its historical associations. It was one of the principal military posts of the Muhammadan government of the Carnatic, and many Musalmans still live in it. The fort was probably built by the Mahráttas. It lies to the north of the town or pettah, which was itself fortified by a high wall, traces of which still remain. It is built in the ordinary Hindu style, being rectangular, with a circumference of about a mile. The walls are built of large granite blocks, some 18 feet high, topped with a line of masonry in which embrasures for cannon are cut. A moat surrounds it, except at the south-east corner, where a strong circular battery stands, mounting eleven guns, and containing within it extensive powder magazines. There are a dozen small circular bastions, at intervals, raised above the ordinary level of the walls, with a square bastion in the south and another in the east. The fortifications have been much defaced, and only a part of the ditch now contains any water. Traces of its many sieges remain in the shape of cracked and starred stones, and many portions of the wall have evidently been breached by cannon and roughly restored by the garrison.

Wandiwash was the scene of much fighting in the Carnatic wars. In 1752 the fort was attacked by Major Lawrence, who,

CHAP. XIX. WANDIWASH. — Places of interest.

however, retired on receiving a ransom of three lakhs. In 1757 Colonel Adlercron destroyed the town but failed to capture the fort, which had been constituted the head-quarters of the French in this part of the Carnatic. The French garrison twice in that year repulsed the English. A more energetic attack under Brereton in 1759 was also unsuccessful. Immediately after this the French soldiers mutinied, and although they were speedily pacified the fort surrendered to Coote before the end of the year. In 1760 the French under Lally, with 3,000 Mahráttas under Bussy, appeared before the town and in the pitched battle that ensued the French were utterly routed and Bussy was taken prisoner. This victory was in itself and in its consequences the most important ever won over the French in India. In 1780 Lieutenant Flint by a bold stratagem saved the fort from falling into the hands of Hyder Ali, and with very inadequate means held it for nearly three years against every device of the enemy. Twice he was relieved by Sir Eyre Coote, and twice at least he repelled most vigorous assaults. Detailed accounts of these various engagements will be found in the first volume.

The jágír was first given by the Emperor Muhammad Sháh to Muhammad Takia Khán, at the request of his father-in-law Dost Ali, the nabob. He was deposed by Wálájá because he and Chanda Sahib had married sisters, and he had admitted French officers into the fort. After some years Wálájá conferred it upon his daughter Daria Bégum, who held it for some years. At the cession the nabob was in possession of the revenues, which therefore passed to the Company.

The town lies a short distance to the north of the Sukhanadi, and is poorly built. It has a fair trade in grain, and besides mats a little leather is manufactured.

In the temple of Jelakantéswaraswámi, Rámaswámi is also worshipped, the idol being placed in the Kalliána mantapam. It was formerly placed in a separate Vishnu temple close to the gate of the fort, but the Muhammadans destroyed the shrine, and only consented to give up the idol upon receiving all its jewels.

Beyond the fort to the north rises the Wandiwash hill, called Davalagiri, or the white mountain, composed of gray granite and having an elevation of about 500 feet above the plain. It possesses two peaks, upon the higher of which is built a small shrine of some repute in honour of Davalagiri Nádhar. At the foot is a smaller temple, built, as an inscription upon a stone states, in S.S. 1600 (A.D. 1678) in memory of Ratnábhai, the mother of the Rájá of Kanauj, who died here on her way toRáméswaram.

Désúr: Population 3,250; police station; post office. This is the second place in importance in the taluk, and is a flourishing

village, with a good number of looms at work, and some tanneries. It was formerly the chief residence of a jágírdár, whose fort is now in ruins. The jágír was at first attached to that of Gingee, and conferred upon one Savanáth Singh, after the reduction of Gingee, and was subsequently held by Badranáth Singh, Chattar Singh, and Manrúp Singh without paying peshkash. The son of the last named, Lakshmanáth Singh, was after the death of Názar Jang forced to pay tribute to the French and subsequently to the nabob, but in reward for his services against Muhammad Esuf of Madura, who committed hostilities in the neighbourhood of Tiruvannámalai, tribute was remitted. Wálájá resumed the estate, but eventually a portion, Désúr and Mélac'chéri, was restored. These were resumed by the Company. A weekly market is held here, to which about a thousand people resort, and where cloth is one of the chief articles offered for sale.

Places of interest.

Tellár: Population 2,193; police station; chatram. This village is situated on the road to Tindivanam in South Arcot. It has the ruins of a small mud fort, built, it is said, by the notorious Nandan Rájá of Padavéd, who is described as having frequently resided in it. Within the walls is a Siva temple. The Jains have, as at Désúr, a place of worship in Tellár. Tellár *nád* was part of Vengundra *kóttam* in Tondamandalam.

Siyyamangalam is a village with a population of 678, and once formed part of the Désúr jágír. It is reputed to have once been a very large place, built by one Chembu Rájá, of whose history nothing definite can be learned. It is now chiefly remarkable for its rock-cut temple. The inner shrine, the lingam, representing Stambéswaraswámi, the four dwárapálakas, or guardians of the entrance, and a gallery supported by pillars, called the ádirálla mantapam, are all carved out of one solid rock. In front of this stands the enclosing wall, in which images of minor deities are represented. These walls are in a state of ruin, the stones having been carried away to build the Désúr fort, which is not far off.

Anakkávúr lies near the Cheyár river, upon its southern bank and not far from Tiruvattúr of the Arcot taluk, and has now a population of 2,498. Its name signifies the village of foot-soldiers, because, so runs the local myth, Ráma, while returning from Ceylon with his monkey allies, encamped here with his army and went across the river to pay his devotions to Védapuríswara of Tiruvattúr. Hanumán remained at Anakkávúr, where the idol now worshipped is called after him Hanumantéswara. The names of several other villages in the taluk have reference to Ráma's triumphant return from Ceylon. At ANAPATTÚR (population 1,334), he is believed to have worshipped Siva, and hence the

CHAP. XIX. WANDIWASH.

Places of interest.

village was called that 'of the great warrior.' At PURISAI (population 1,370) he directed Sugríva, Hanumán's superior, to found a town, which he did, and called it the village of Siva (Puríswara).

Vallam: Population 1,465;

Úrkúdi: Population 287;

Vanakkambádi (North and South): Population 1,142;

Sórupákkam;

Ánaibógi: Population 744.

These villages are connected with the legend of the destruction of Vallubhi, the sister of Dwárakásura, the rákshasa, by Subramaniaswámi with the assistance of Vignéswara. Vallubhi is reputed to have lived at *Vallam* (a contraction for *válmikam*, an ant's nest, since Siva here manifested himself in that form), and to have had the power of bringing forth giants, heroes, elephants, horses, &c. Tormented by these, the minor gods assembled at *Úrkúdi* (the gathering of the villages) and besought Subramaniaswámi to save them. With great respect he applied to Vignéswara at *Vanakkambádi* (the village of respect), who consented to destroy Vallubhi, and accordingly received offerings of cooked rice at Sórupákkam (the village of boiled rice). At *Ánaibógi* (subdued by the elephant, *i.e.*, by Vignéswara, who bears an elephant's head) the malignant goddess was conquered, and the country delivered from her annoyance.

List of Grand Trigonometrical Stations.

Taluk.	G.T. station.	Height above sea level.
Arni	Arni Fort, S.	499
	Dévikápuram, T.	801
	Nagaram, T.	488
	Narasingapuram, H.S.	967
Arcot	Arcot Fort (Nabob's house)	473
	Kaniyanúr, H.S.	643
	Mámandúr, H.S.	431
	Mámandúr Rock, S.	413
	Timiri, H.T.	722
Chendragiri	Karakambádi Fort, south-east angle	275
	Tellarállapéta, S.	3,739
	Tirupati Temple (large Gópuram)	635
Chittoor	Chittoor Fort	972
	Mogili, H.S.	2,461
	Murukkambattu, H.S.	1,786
	Yailkúr, H.S.	1,117
Gudiyáttam	Battinkonda, H.S.	1,906
	Pallikonda, H.T.	2,187
	Sátghur, H.S.	2,317
Kálahasti	Kálahasti Temple Gópuram	368
	Pillamédu, H.S.	499
	Yérpéd, H.S.	2,235
Kangundi	Chinni Drúg	2,079
Kárvetnagar	Allammargo, H.S.	1,745
	Kúkiralkonda (remarkable stone)	1,634
	Nagari Nose, H.S.	2,824
	Náráyanavanam, H.S.	350
	Pandree, H.S.	236
	Pinnaku, H.S.	725
	Pullúr, S.	1,914
Palmanér	Dévarakonda, H.S.	2,732
	Karaváda, H.S.	2,592
	Krishnamakonda, H.S.	2,768
	Palamnaid bungalow	2,130
	Palmanér	2,247
	Pattikonda, H.S.	2,908
	Peddanaik Drúg, S.	2,425
Pólúr	Carnaticghur, H.M.S.	3,124
Punganúr	Ávulapalli Drúg, S.	3,829
Vellore	Kailásaghar, H.S.	2,743
	Rishimalai, S.	2,136
	Vellore Drúg	1,741
	Vellore Fort Pagoda	791
Walájápet	Anandalai, H.S.	925
	Karimakóta, H.S.	338
	Kávéripák Fort	389
Wandiwash	Ammaniyavaram, H.T.	519
	Chetpat, H.M.S.	1,450
	Ponnúr, H.S.	587
	Wandiwash, H.T.	1,021

NOTE.—H.S. means Hill Station. H.T. means Hill Temple.
S. " Station. T. " Temple.
H.P. " Hill Pagoda. H.M.S. " Hill Mark Signal.

CHAPTER XX.

WEIGHTS AND MEASURES.

CHAP. XX. WEIGHTS AND MEASURES.

Weights.

THE ordinary table of weights is as follows :—

3 tolas	= 1 pallam.
8 pallams (or 24 tolas)	= 1 kac'cha seer.
5 kac'cha seers (or 120 tolas)	= 1 viss.
2 viss (or 240 tolas)	= 1 dhadiyam.
4 dhadiyams (or 960 tolas)	= 1 maund.
20 maunds	= 1 candy.

The tola is equal to 0·4114 of an ounce, so that the pallam is nearly an ounce and a quarter, the viss a little more than three pounds and the maund rather less than 25 lbs.

The *pucka* seer of Chittoor and Vellore is 72 tolas. The *pallam* of goldsmiths is said to be 10 pagodas' weight, and actually weighs about 2·8 or 2·9 tolas. The viss is sometimes estimated at 400 Ikkeri pagodas, sometimes at 400 Bahaduri pagodas and sometimes at 400 Star pagodas. The average of these is 52·7 grains to the pagoda, which would make the viss 117 tolas; but on trial it is found to be from 119 to 121 tolas, so that 120 tolas, as in the table above, may be assumed, though a viss of 126 tolas is also in use in Arcot, Chittoor, and Vellore.

Grain measures.

When the district was assessed for land revenue in 1806, the usual grain measure for account was the 'kallam,' which was then said to be about 40 Madras measures. The Madras measure referred to was said to contain 129 tolas' weight of gram, but whether struck or heaped; is not mentioned; probably the latter.

In reply to a circular of 1821 it was stated that 'the kallam' was generally estimated at 30 Madras padis and sub-divided into 12 tooms. The padi transmitted as a model, at that time, had a capacity of 108 cubic inches, and held 126 tolas of cooltee or horse-gram when struck, and 140 when heaped, but from reference to the original taluk reports from the tahsildars to the Collector, it appears that there was no definite standard for the *padi*. In Chittoor it is reported as 120 rupees' weight; in Vellore 140; and in other places from 128 to 136, but whether heaped or struck is not stated; most probably the weight was that of a heaped measure of *gram*, which grain seems to be used in North Arcot as a standard.

CHAP. XX. WEIGHTS AND MEASURES.

Grain measures.

In 1838 the Collector endeavoured to introduce a uniform *padi*, to contain, when heaped, 150 tolas' weight of horse-gram, and though variety certainly exists, this standard agrees with the *padi* of four principal towns as gauged in the Madras Mint in 1852 as follows :—

Diameter in inches.	Depth in inches.	Cubic inches.	Horse gram struck in tolas.	Horse-gram heaped in tolas.
4¼	8·66	122	142	150

When tested with rice they held 138 tolas struck and *nearly* 150 heaped, for though rice has a less specific gravity than horse-gram (113 instead of 116 tolas to 100 cubic inches), horse-gram being a rounder grain does not heap so high.

The table of measures is the same as in Chingleput, viz. :—

8 padis = 1 marakál or toom.
12 marakáls = 1 kallam.
400 marakáls = 1 garce.
40 kallams = 1 candy.

The present *toom* or marakál differs in different places as follows : —

At Sholinghur, Pólúr and Arni it is	2½	padis heaped.
At Tiruvattúr	2⅔	do.
At Wandiwash	2⅝	do.
At Tiruvalam and Chittoor	3	do.
At Vellore	4	do.
At Venkatagirikóta and Tirupati	8	do.

The *Ráyóji Marakál* varies from 2½ to 2¾ *padis*, but holds, on an average, 400 rupees' weight of horse-gram, which agrees with the *Ráyóji Marakál* of South Arcot. In the old returns, however, it is stated that it varies from 350 to 360 rupees' weight, so that perhaps 2½ *padis* is nearer the truth.

This great variety of measures does not cause so much confusion and inconvenience as might be supposed, for people move but little from their homes and the local measure is well known. There is in most of the offices of tahsildars and deputy tahsildars a small staff for testing measures (and weights also) and the Government stamp of accuracy given by these establishments is thoroughly understood and greatly valued by the people.

Liquid measures.

The English dram and gallon are used for the sale of spirituous and fermented liquors. The other liquids generally sold are milk, curds, butter-milk, ghee, oils and honey. Of these milk, curds

CHAP. XX. WEIGHTS AND MEASURES.

Liquid measures.

and butter-milk are invariably sold by measure. Ghee, oils and honey are generally sold by measure as well as by weight, but the original producers or manufacturers usually sell by measure only. The measures usually employed are the ordinary grain measures of the locality, but there are a number of special liquid measures also. Some of these are old grain measures, now no longer used for grain, while others bear the names of weights and are intended to contain that weight of oil or ghee.

Land measures.

The *káni* was adopted in measuring the lands for assessment in about 1803.

1 kóle or rod = 24 feet.
1 square kóle = 576 feet = 1 kuzhi (Tamil) or gunta (Telugu).
100 kuzhis or guntas = 1 káni = 57,600 square feet = acre 1·322314.

In the revenue accounts the *káni* was divided into annas, or sixteenths, and these into pies, or twelfths of an anna.

1 anna = 3,600 square feet.
1 pie = 300 do.

In the Kálahasti zemindári the *gorru* is the unit of land measures, but the extent of the unit varies in different parts of the estate. In some villages it consists of 35 square *guntas*, a gunta being a rope of 84 local feet; in others of 40 *guntas* of 72 local feet; in another part it is the equivalent of 56 *guntas*, but the gunta is only 64 feet; while in yet another part of the zemindári it consists of 25 *guntas* of 48 feet each. The local foot here referred to is said to be the length of the foot of any tall man in the neighbourhood and it was found to be in each of the above four cases 11·32, 11, 11·14 and 10·5 English inches, respectively. Thus the *gorrus* described above are equivalent to 5, 4, 4·66 and 1·01 acres respectively.

The *gunta* of the Kárvetnagar zemindári is a square chain of 60 country feet in unirrigated land and 56 country feet in irrigated. This country foot is the length of the foot of the goddess in the temple of Kempulapáliam near Náráyanavanam and is approximately 10¼ inches.

In the Kangundi zemindári the land measure is the extent which a certain quantity of seed will sow, but this is a mere estimate. It is said that an area of irrigated land, requiring 7½ Madras measures to sow it, is a *káni;* and an area of unirrigated land, requiring 36 Madras measures to sow it, is also a *káni;* the areas being supposed to be the same. The Madras measure referred to is probably the customary measure (padi) of the Madras bazaar, having a *struck* capacity of 105 cubic inches, and holding, when struck, about 117 tolas' weight of rice, and when heaped about 128.

CHAP. XX. WEIGHTS AND MEASURES.

In the zemindáris the old measures are still largely used, but elsewhere they have been replaced by the English acre, which is now used in all Government accounts and returns.

Lineal measures.

The English inch, foot and yard are now very generally used, but the old native terms are still met with. These are:

12 fingers' breadth	=	1 span (ján).
2 spans	=	1 cubit (múra).
2 cubits	=	1 yard (gejam).
4 cubits	=	1 fathom (bára).

The English mile is also used in describing long distances, as well as the old native measures which are—

Distance walked in a názhigai (Tamil) or gadia (Telugu) = $1\frac{1}{3}$ miles.

$2\frac{1}{2}$ názhigais or gadias = 1 paragu.

3 paragus = 1 ámada or kádam = 10 miles.

Time.

For time also the English style is common. The native table is the following:—

6 vikkadaleis or vinádis	=	1 nimisham or wink.
60 do do.	=	1 viggadia.
60 viggadias	=	1 názhigai or gadia.
$3\frac{3}{4}$ gadias	=	1 muhúrtam.
60 gadias	=	1 day.

The gadia or názhigai is therefore of 24 minutes' duration.

Twenty-seven kártis make up one year, the length of which varies in different years from less than 366 to 367 days, the ordinary duration of a kárti being $13\frac{3}{4}$ days. There are twelve months in each year, varying in length up to as much as 32 days. The whole arrangement is very complicated and would take long to describe, depending as it does upon the movements of the heavenly bodies.

CHAPTER XXI.

LIST OF COLLECTORS AND JUDGES OF NORTH ARCOT.

CHAP. XXI.
COLLECTORS.

List of Collectors.

Date with year.		Names of Collectors.
2 Aug.	1801.	Mr. George Stratton, Principal Collector.
8 Feb.	1803.	Mr. Cockburn, Principal Collector.
25 Dec.	1804.	Mr. Graeme, Principal Collector.
15 April	1818.	Mr. Robert Sherson, Principal Collector.
1 March	1819.	Mr. C. Roberts (Sub-Collector in charge).
15 Oct.	1819.	Mr. J. Hutt, Acting Collector.
17 Aug.	1820.	Mr. W. Cooke, Principal Collector.
1 Dec.	1824.	Mr. H. Chamier (Sub-Collector in charge).
14 Feb.	1825.	Mr. Nisbet, Principal Collector.
29 March	1827.	Mr. Davis (Sub-Collector in charge).
23 April	1827.	Mr. C. Roberts, Principal Collector.
18 Feb.	1832.	Mr. W. H. Babington (Sub-Collector in charge).
3 March	1832.	Mr. R. Eden, Acting Collector.
1 Jan.	1833.	Mr. C. Roberts, Principal Collector.
17 Feb.	1836.	Mr. Hallet (Sub-Collector in charge).
31 March	1836.	Mr. G. M. Ogilvie, Acting Collector.
14 Nov.	1836.	Mr. C. Roberts, Principal Collector.
14 Jan.	1837.	Mr. G. M. Ogilvie, Principal Collector.
31 Jan.	1842.	Mr. J. D. Bourdillon (Sub-Collector in charge).
23 Feb.	1842.	Mr. J. Goldingham, Acting Collector.
13 March	1843.	Mr. W. H. Babington (Sub-Collector in charge).
3 Sept.	1843.	Mr. J. Goldingham, Collector.
6 Feb.	1845.	Mr. E. C. Lovell, Acting Collector.
20 March	1848.	Mr. R. B. M. Binning (Sub-Collector in charge).
27 April	1848.	Mr. J. D. Bourdillon, Acting Collector.
8 March	1851.	Mr. S. N. Ward, Acting Collector.
19 Jan.	1852.	Mr. H. A. Brett, Acting Collector.
28 Aug.	1853.	Mr. R. B. M. Binning (Sub-Collector in charge).
8 Dec.	1853.	Mr. J. D. Bourdillon, Collector.
23 Oct.	1854.	Mr. R. B. M. Binning (Sub-Collector in charge).
30 Oct.	1854.	Mr. Whittingham, Collector.
8 Aug.	1855.	Mr. R. B. M. Binning (Sub-Collector in charge).
7 Nov.	1855.	Mr. C. Whittingham, Collector.
22 July	1859.	Mr. J. D. Robinson, Acting Collector.
29 June	1861.	Mr. J. D. Robinson, Collector.
1 Feb.	1862.	Mr. J. Fraser, Acting Collector.
8 Dec.	1863.	Mr. J. Fraser, Collector.
5 Aug.	1864.	Mr. G. Banbury, Acting Collector.
13 July	1865.	Mr. J. D. Robinson, Collector.
5 April	1868.	Mr. G. VansAgnew, Acting Collector.

List of Collectors—cont.

Date with year.		Names of Collectors.
23 Oct.	1868.	Mr. J. D. Robinson, Collector.
7 May	1870.	Mr. W. S. Whiteside, Acting Collector.
4 May	1871.	Mr. J. D. Robinson, Collector.
27 April	1872.	Mr. W. S. Whiteside, Acting Collector.
4 March	1873.	Mr. W. S. Whiteside, Collector.
21 March	1873.	Mr. H. Sewell, Acting Collector.
21 June	1873.	Mr. W. S. Whiteside, Collector.
3 May	1879.	Mr. D. Buick, Acting Collector.
3 Aug.	1879.	Mr. W. S. Whiteside, Collector.
23 June	1882.	Mr. A. J. Stuart.
30 Sept.	1884.	Mr. G. W. Fawcet.
26 Nov.	1884.	Mr. H. J. Stokes.
12 Feb.	1885.	Mr. C. Kough.
10 April	1885.	Mr. W. H. Glenny.
7 Oct.	1885.	Mr. G. W. Fawcet.
22 Nov.	1885.	Mr. Lewis Moore.
26 Feb.	1886.	Mr. H. M. Winterbotham.
22 April	1886.	Mr. P. W. Moore.
27 July	1886.	Mr. W. H. Glenny.
12 May	1887.	Mr. C. F. MacCartie.
26 Aug.	1887.	Mr. W. H. Glenny.
27 Nov.	1887.	Mr. W. H. LeFanu.
14 Aug.	1890.	Mr. J. N. Atkinson.
22 Nov.	1890.	Mr. W. H. LeFanu.
7 Jan.	1893.	Mr. F. A. Nicholson.
8 April	1893.	Mr. J. Hewetson.
28 June	1893.	Mr. H. A. Stuart.
18 Oct.	1893.	Mr. W. H. LeFanu.
25 March	1894.	Mr. G. F. T. Power.

List of Judges.

Name of Court.	First Judge.		Second Judge.		Third Judge.		Additional Judge.	
	Name.	Date of assuming charge of the Court.	Name.	Date of assuming charge of the Court.	Name.	Date of assuming charge of the Court.	Name.	Date of assuming charge of the Court.
Provincial Court.	Mr. C. Harris ...	1st Jan. 1812	Mr. G. Read ...	1st Jan. 1812	Mr. S. Skinner ...	1st Jan. 1812	......	......
	......	......	Mr. S. Skinner ...	1st Mar. 1812	Mr. F. Gahagan ..	1st Mar. 1812	......	......
	......	......	......	......	Mr. W. Hawkins.	1st June 1815	......	......
	......	......	Mr. W. Hawkins.	11th Dec. 1818	Mr. W. E. Wright.	11th Dec. 1818	......	......
	......	......	......	......	Mr. H. Lord (Acting).	1st Nov. 1819	......	......
	......	......	Mr. J. B. Travers.	1st Jan. 1820	Mr. J. Long (Acting).	15th Feb. 1820	......	......
	......	......	......	......	Mr. J. Long (Permanent).	8th June 1821	......	......
	......	......	Mr. J. H. D. Ogilvie.	15th Aug. 1820	......	......	......	......
	......	......	Mr. P. Bruce ...	1st Oct. 1820	......	......	......	......
	Mr. P. Bruce ...	8th June 1821	......	......	Mr. C. H. Higginson.	14th Nov. 1820	......	......
	......	......	......	......	Mr. G. Paske ...	9th Feb. 1821	......	......
	Mr. P. Cherry ...	11th Sept. 1821	Mr. G. Paske ...	8th June 1821	Mr. J. O. Tod ...	1st Dec. 1821	......	......
	......	......	......	......	Mr. W. Brown (Acting).	9th Dec. 1821	......	......
	......	......	Mr. W. Brown ...	8th Jan. 1822	Mr. Thomas Newnham.	8th Jan. 1822	Mr. J. Dacre (Acting).	14th Feb. 1823
	Mr. W. Brown ...	9th Mar. 1824	Mr. Thomas Newnham.	9th Mar. 1824	Mr. A. D. Campbell.	9th Mar. 1824	Mr. J. Dacre (Permanent).	1st July 1825

List of Judges--cont.

Name of Court.	First Judge.		Second Judge.		Third Judge.		Additional Judge.	
	Name.	Date of assuming charge of the Court.	Name.	Date of assuming charge of the Court.	Name.	Date of assuming charge of the Court.	Name.	Date of assuming charge of the Court.
Provincial Court—*cont.*	Mr. Edward C. Greenway (Acting).	1st Jan. 1827	......	......	Mr. J. Dacre ...	1st Feb. 1826	......	......
	Mr. C. Harris ...	25th Jan. 1828	Mr. T. A. Oakes.	1st Feb. 1828	Mr. A. D. Campbell.	17th June 1828	......	......
	......	......	......	......	Mr. G. W. Saunders.	1st Nov. 1828	......	......
	Mr. J. H. D. Ogilvie.	13th July 1829	......	......	......	......	Mr. G. J. Waters.	10th July 1829
	Mr. H. S. Graeme.	29th Sept. 1829	......	......	......	......	Mr. G. J. Waters (Acting).	1st Apl. 1830
	Mr. T. A. Oakes...	20th Apl. 1830	Mr. T. Gahagan...	20th Apl. 1830	Mr. J. B. G. P. Paske.	27th Aug. 1830	Mr. H. T. Bushby (Acting).	28th June 1831
	......	......	......	......	Mr. T. Thomas ...	21st Sept. 1832	......	......
	Mr. T. Gahagan (Acting).	11th June 1833	......	......	Mr. R. Nelson (Acting).	19th Oct. 1832	Mr. R. Nelson ...	1st Feb. 1833
	......	......	......	......	Mr. W. D. Davies.	11th Jan. 1833	......	......
	......	......	Mr. W. D. Davies (Acting).	1st Apl. 1833	Mr. T. E. J. Boileau (Acting).	11th Jan. 1833	......	......
	Mr. J. Vaughan (Acting).	6th Dec. 1833	......	......	......	......	......	......

List of Judges—cont.

Name of Court.	First Judge.		Second Judge.		Third Judge.		Additional Judge.	
	Name.	Date of assuming charge of the Court.	Name.	Date of assuming charge of the Court.	Name.	Date of assuming charge of the Court.	Name.	Date of assuming charge of the Court.
Provincial Court—*cont.*	Mr. G. J. Casamajor (Acting).	10th Jan. 1834	......	......	......	......	Mr. M. Lewin (Acting).	1st Mar. 1834
	Mr. T. A. Oakes ...	1st Apl. 1835	Mr. G. J. Casamajor.	1st Apl 1835	Mr. W. D. Davies.	1st Apl. 1835	......	......
	......	......	Mr. J. Haig ...	16th Sept. 1835	......	......	Mr. H. T. Bushby.	8th July 1837
	Mr. G. J. Casamajor (Acting).	1st Feb. 1838	Mr. M. Lewin (Acting).	10th Mar. 1838	......	......	Mr. J. Thomas ...	21st June 1839
	Mr. G. J. Casamajor.	1st Mar. 1840	Mr. W. D. Davies (Acting).	1st Feb. 1840	Mr. J. Horslay (Acting).	22nd Feb. 1840	......	......
	......	......	Mr. W. Harington (Acting).	7th Jan. 1841	Mr. G. Bird ...	7th Jan. 1841	......	......
	......	......	......	......	Mr. W. H. Babington (Acting).	7th Jan. 1841	......	......
	Mr. W. R. Taylor.	4th Mar. 1841	Mr. M. Lewin ...	1st Mar. 1841	Mr. W. H. Babington.	20th Mar. 1841	......	......

List of Judges—cont.

Name of Court.	Name of Judge.	Date of assuming charge of the Court.
	Civil and Sessions Judges.	
Civil Court	Mr. W. Lavie	16th Sept. 1843.
	Mr. W. R. Taylor	1st July 1844.
	Mr. J. W. Bell (Acting)	9th Dec. 1844.
	Mr. W. Lavie	1st Dec. 1845.
	Mr. E. C. Lovell (Acting)	1st April 1848.
	Mr. E. C. Lovell	15th April 1848.
	Mr. A. S. Mathison	1st Sept. 1851.
	Mr. R. J. Sullivan (Acting)	4th Mar. 1856.
	Mr. A. S. Mathison	19th Sept. 1856.
	Mr. G. A. Harris	1st Feb. 1857.
	Mr. J. A. Goldie (Acting)	10th Dec. 1857.
	Mr. G. A. Harris	1st Feb. 1859.
	Mr. Charles Collett (Acting)	4th Jan. 1862.
	Mr. W. T. Blair (Acting)	9th Jan. 1863.
	Mr. G. A. Harris	8th April 1863.
	Mr. C. A. Roberts	18th Sept. 1863.
	Mr. O. B. Irvine (Acting)	4th May 1867.
	Mr. J. W. Breeks (Acting)	5th Jan. 1868.
	Mr. E. F. Elliot (Acting)	1st Aug. 1868.
	Mr. C. G. Plumer	6th June 1869.
	Mr. H. J. Stokes (Acting)	8th June 1873.
District Court	Mr. C. G. Plumer	1st July 1873.
	Mr. O. B. Irvine (Acting)	1st April 1874.
	Mr. H. Sewell (Acting)	25th June 1874.
	Mr. C. G. Plumer	6th April 1875.
	Mr. H. Wigram (Acting)	26th Oct. 1875.
	Mr. C. G. Plumer	13th Nov. 1875.
	Mr. C. A. Bird (Acting)	6th June 1880.
	Mr. C. G. Plumer	1st June 1880.
	Mr. D. Buick	2nd May 1882.
	Mr. C. A. Bird	23rd May 1883.
	Mr. D. Buick	17th Oct. 1883.
	Mr. H. T. Knox (Acting)	7th Oct. 1884.
	Mr. C. S. Crole	3rd Jan. 1887.
	Mr. J. P. Fiddian (Acting)	8th Feb. 1889.
	Mr. J. H. A. Tremenheere (Acting)	12th June 1889.
	Mr. C. S. Crole	8th Aug. 1889.
	Mr. H. H. O'Farrell	7th Oct. 1889.
	Mr. W. C. Holmes	11th Mar. 1890.
	Mr. C. S. Crole	8th May 1890.
	Mr. O. Wolfe-Murray (Acting)	14th July 1890.
	Mr. C. H. Mounsey (Acting)	25th Nov. 1890.
	Mr. T. M. Horsfall (Acting)	22nd Dec. 1890.
	Mr. E. J. Sewell	13th June 1891.
	Mr. W. H. Welsh (Acting)	9th Aug 1893.
	Mr. E. J. Sewell	8th Jan. 1894.

CHAPTER XXII.

TOMBS AND MONUMENTS.

CH. XXII. TOMBS AND MONUMENTS.

THIS district contains an unusually large number of tombs and monuments of Europeans and a very interesting and exhaustive list of them has been prepared by Mr. H. LeFanu, formerly Collector of North Arcot. This list was printed at the district press where copies can be obtained.

The oldest of the tombs that bear legible inscriptions is that of Captain John Macalister, who died at Arni in 1784, but it is probable that a tomb, without inscription, at Wandiwash is of older date, as a number of British officers were killed there in the various engagements that took place during 1759, and Major Brereton fell in repelling an attack by the French in January 1760.

The following inscriptions, selected from Mr. LeFanu's list, are of more than usual interest:—

VELLORE OLD CEMETERY NEAR COMMISSARY BAZAAR.

1799, *11th May*.—Colonel Robert SALE, Commandant of the Garrison, aged 64 years. [Possibly father of General Sir Robert Sale, born 1782, who commanded 'the illustrious garrison' in 1842.] "Exemplary private worth and distinguished public integrity distinguished the tenor of his actions. His long and useful life was a continued blessing to his family, of advantage to society and of benefit to his country, in the practice of every rule of active benevolence. His memory will long be cherished by those to whom his virtues were familiar."

1805, *5th June*.—Captain James BULL of H.M.'s 34th Regiment, aged 21 years. [Son of Major Bull, and younger brother of Colonel Robert Alexander Bull, R.H.A., C.B. and K.H. This officer was shot in a duel with a brother officer near the Chittéri tank, Vellore. Some circumstances connected with the duel exciting suspicion, a court-martial was held on the case, with the result that three officers were cashiered for conspiracy against Captain Bull's life. It is noteworthy that he was gazetted as having 'resigned' on the 7th of June,

though he died on the 5th of that month. The commission was given out of the regiment, by purchase, to Lieutenant J. Young of the 8th Light Dragoons. Possibly the purchase-money was secured for the family of Captain Bull. The records of the court-martial on this case are to be seen at Fort St. George, Madras. They give an interest to this grave which the unusually bare inscription on it does not suggest, and throw a vivid light on the history of military life in those old days.]

1806, *10th July.*—St. John FANCOURT, Lieutenant-Colonel of H.M.'s 34th Regiment, aged 37 years. Commandant of Vellore, who was killed while gallantly defending the garrison in the mutiny of the sepoys on the 10th July 1806.

1806, *10th July.*—Major Charles ARMSTRONG in the service of the Honourable East India Company. "While journeying to Madras, in the immediate hope of returning to his native country, was barbarously murdered near this place (Vellore) on the 10th July 1806." [Here follows a long eulogium, ending with the phrase—"The monument is humble but the record is true." Major Armstrong, who belonged to the 16th N.I. and not to any of the troops stationed at Vellore, was passing outside the fort, in a palanquin, when he heard the sound of fire-arms. Alighting, he advanced to the crest of the glacis, and asked what the firing meant. The answer was a volley fired by some mutineers on the ramparts, which killed him on the spot.]

1806, *10th July.*—Lieutenant I. M. TICHBOURNE of the 6th Battalion, 4th Regiment, N.I., aged 19 years, who was killed in Vellore on the 10th July 1806. [Inscription nearly illegible. The 4th N.I. were removed from Vellore before the mutiny and in the *History of the Madras Army* this officer is said to have belonged to the 1st N.I.]

1806, *10th July.*—Sergeant Solomon FROST, aged 69 years. [This Sergeant was probably killed in the mutiny of that day.]

1806, *10th July.*—James Walter LAPIDS, Quartermaster-Sergeant. [This Sergeant was probably killed on the day of the mutiny. The inscription is nearly illegible.]

1806, *10th July.*—Captain James J. MILLER, aged 21 years. [This officer belonged to the 1st N.I.]

1806, *10th July.*—Lieutenants POPHAM and ELEY, 5 Sergeants, 4 Corporals, 1 Drummer and 70 Privates of H.M.'s 69th Regiment, who fell while bravely resisting the mutineers at Vellore. This monument erected in 1863–64, previous to the second departure of the regiment from India, marks the spot where they rest. [The tomb is a handsome granite one with a surrounding wall.] The number of privates should be 90, and 15 more subsequently died of their wounds.

NOTE.—Colonel McKerras, Captain Willison and Lieutenants Winchip, Jolly, O'Reilly and Smart were also killed in the Vellore mutiny, and presumably were buried at Vellore, but no monuments to their memory have been discovered. Possibly the inscriptions have become illegible.

CH. XXII.
TOMBS AND MONUMENTS.

1823, 22nd *November*.—Lieutenant-Colonel Alexander MACKINTOSH, aged 49 years. [On one of the sides of a fine granite tomb are carved very clearly the family armorial bearings of the deceased:—Escutcheon with 4 quarterings, (1) a cat rampant, (2) a hand holding a glove, (3) a lion, and (4) a quaint old Viking's ship in full sail, with the motto of the Mackintoshes, "Touch not the cat but (i.e., *without*) a glove."]

1832, 12*th September*.—James Stephen LUSHINGTON of the Bengal Civil Service and Private Secretary to his father the Right Honourable Stephen Rumbold Lushington, Governor of Madras, aged 28 years. This is a handsome stone monument in good order, with heavy iron railings round it. A statue to his memory has been erected in Saint George's Cathedral, Madras. The features of the statue are so gentle and gracious that it is plain that the wording of the inscription, given below, contains no more than bare truth. The inscription runs as follows:—Sacred to the Memory of James Stephen Lushington, Esq., of the Bengal Civil Service, who died September 12th, 1832, at the early age of 28 years. Second son of the Right Honourable S. R. Lushington, M.P., late Governor of Madras, and of Anne Elizabeth, eldest daughter of George Lord Harris. Distinguished on his first arrival in India by superior talents and acquirements, and passing with rapid success through his studies in the College of Fort William, he gave early promise of that intellectual and moral worth which is recorded with admiring friendship by the pious and accomplished Heber, and which his short but brilliant career in this Presidency developed and matured. As the Private Secretary of the Governor he acquired by his impartial courtesy the esteem of every branch of the Public Service, while his many virtues and endearing qualities secured the approbation and realized the hopes of his affectionate and bereaved father. This monument is erected by the society which he adorned as a just tribute to his departed excellence.

1857, 31*st December*.—Lieutenant B. B. BOYD, late of the Madras Engineers, aged 18 years and 1 month. "Who was accidentally killed on the 31st December 1857, while zealously superintending operations on the Pálár bridge near Vellore. Erected by the officers of his corps." A correspondent, who was living in the district at the time, states as follows:—The poor fellow, I was told, in his anxiety to have the arch completed on a certain date, and against the advice of older heads, removed the 'centerings' with a thick bamboo himself, and was smashed under the damp mass of brick and mortar.

1858, 12*th November*.—Captain Henry Douglas HART, 39th Regiment, Madras N.I., aged 35 years. "Who died at Vellore by the hand of a fanatic sepoy assassin on the 12th November 1858." This officer was shot, while standing on the steps of the late General Ottley's bungalow, by a sepoy who stood on the ramparts of the fort. The cause of the attack is not known. The sepoy is said to have stood on the ramparts, threatening the house referred to, the inmate of which, a lady, had gone to Captain Hart for help; he, returning with her to

investigate, was shot on alighting from his carriage. A correspondent, who was living near Vellore at the time gives the following account of the occurrence :—On the night in question the sepoy who was on guard at the flagstaff bastion in the fort, fired off his musket. The jail, in those days, was in the fort near the flagstaff. Old Sergeant Stafford, the Jailor, hearing the report, went out to inquire, and was shot dead. The sepoy then, by some means, foul or fair, managed to pass the sentries, and made for the officers' lines. Captain Hart happened to be the first officer driving to the scene of mischief, and was unexpectedly met by the sepoy near the Commissariat office, and shot in his phaeton. A strong guard with other officers had by this time turned out, and the sepoy placed himself on the Muhammadan Saint's tomb situated on the south-east glacis of the fort. Here he threatened either to 'do' for the rest or die, when asked to lay down his arms and surrender. The officer in charge seems to have known that the sepoy was able to defend himself with bayonet only, and so closed on the villain with drawn sword, disarmed and made him a prisoner. When his ammunition pouches were examined, it was found that there was enough ball ammunition to have done a deal more mischief, but not a single cap. He had dropped them out of the cap pouch, which he left open, while running about. He was handed over to, and tried and sentenced by, the civil authorities, and was hanged on the plain between the fort and the market.

ARNI DIVISION.

CEMETERY WITHIN THE FORT ARNI.

1784, 12*th August*.—John MACALISTER, Esq., Captain and Commander, 4th Regiment Cavalry, in the Honourable East India Company's Service, 38 years and 10 months. This is the oldest tomb in the district. The inscription is rapidly becoming illegible.

N.B.—There are some more letters, which cannot be made out.

1798, 23*rd December*.—Colonel Henry Hervey ASTON, aged 37 years. "This monument, sacred to the memory of Colonel Henry Hervey Aston, is erected by the officers of His Majesty's 12th Regiment of Foot, as a lasting testimony of the honour and respect in which they held his character when alive. He died in the command of the regiment at Arni, in the 37th year of his age. December 23rd, A.D. 1798."

"Lamented shade! pupil of spotless truth,
First in the ranks of honour's ardent youth
Thy generous soul, magnanimous in death,
Stamps on our hearts who caught thy latest breath
Our country's loss. But while we mourn the doom
That sinks untimely Aston to the tomb
The worth to which we consecrate the grave
Shall waft thy spirit to the good and brave."

[Colonel Aston is said to have been a noted duellist, and an unerring shot; mortally wounded in this, his last duel, he is said to have

CH. XXII. TOMBS AND MONUMENTS.

fired in the air, exclaiming "my last act shall not be one of revenge," and it is to this circumstance that the words 'magnanimous in death' in the above inscription allude. A member of the family states that another Hervey Aston, brother of the above, distinguished himself as a duellist during the occupation of Paris—1815—when the French fire-eaters were continually picking quarrels with the officers of the allied armies.]

OUTSIDE THE CEMETERY AND WITHIN THE FORT, ARNI.

1790, *29th September*.—Colonel Robert KELLY. A. A. E. S. 52. "Sacred to the memory of Colonel Robert Kelly, who *departed this* life in the vicinity of Arni, September 29th, A.D., 1790, aged 52. This monument was erected by Lieutenant-Colonel Urban Vigors, as a mark of respect for a gallant soldier." [This is an imposing masonry column, about 65 feet high, situated in the old parade ground in the fort. It is in good order and the inscription is quite clear. The ball on the top of the column fell off some years ago. Colonel Kelly was killed in a duel in a field near Arni by Lieutenant-Colonel Vigors. Tradition has it that, on Colonel Kelly's appointment to Command, Colonel Vigors spoke of him as an 'old woman' to his wife, who repeated the remark to Mrs. Kelly, who insisted upon Colonel Kelly obtaining 'satisfaction,' with the above result. The story has been so handed down, and, in those days, it was nothing extraordinary that life should be lost for such a trifle.[1]]

CEMETERY AT CHITTOOR.

1828, *22nd February*.—J. DACRE, Esq., of Kirklenton Hall, Cumberland, and 3rd Judge of the Provincial Court of Appeal and Circuit in the Centre Division, aged about 45 years.

1831, *1st June*.—Rev. Robert JENNINGS, Missionary at Chittoor, from the London Missionary Society, aged 34 years. "This monument is erected by the European Society at Chittoor, among whom he laboured. His piety, worth and talents need no memorial to immediate survivors; but the coming age may record with interest the graves of the earlier evangelists in this, at present, heathen land."

---

[1] In the *History of the Madras Army* (ii. 199) Col. Kelly is described as 'an able and distinguished officer who had seen much service. When a captain he commanded the 9th battalion, which is still known by his name.' In 1775, at Palamcottah, he tried his native commandant for mutiny and blew him from a gun. At the time of his death he was in command of the 'centre army' of the force then being gathered to oppose Tippoo. The 21st battalion, which formed part of the centre army, was commanded by Captain (not *Colonel*) Urban Vigors. This officer took a gallant part in the siege of Seringapatam and afterwards commanded the Hyderabad Subsidiary Force. If the monument at Arni was erected by him when he was a lieutenant-colonel, it must have been raised after Seringapatam, for at that time he was only a captain.

1868, 16*th February*.—Samuel RULE, M.D., of the Madras Army and Civil Surgeon of Chittoor, aged 32 years. [Died of hydrophobia from the bite of a pet dog.] "He hath done all things well."

The custom of erecting monuments with inscriptions over the remains of the dead is very rarely met with among Asiatics, and there are, therefore, few tombs of distinguished natives of India that can be identified. Such as exist are entirely those of Musalmans, and among these may be mentioned the cenotaph of Anwar-ud-dín at Ambúr (the body was taken to Hyderabad), the tombs of the wives of Hyder and Tippoo and other members of their family near Vellore, and a number of tombs at Arcot, of which the most important are those of Sádat-ullá-khán and of the holy fakír, Tippoo Auliah.

INDEX.

A

B

C

T

U

V

W

Pólúr,